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MODERN AND ANCIENT ROADS

IN

EASTERN ASIA MINOR.

PART I.

PASSES OF THE EASTERN TAURUS AND ANTI-TAURUS.

By D. G. HOGARTH.

Maps, p. 739.

THE journeys upon which the following paper is based were undertaken during the summer months of 1890 and 1891. In the former year I accompanied Prof. W. M. Ramsay (as I had done in 1887), and we were joined by the Rev. A. C. Headlam, Fellow of All Souls College, Oxford. We set out from Diner, the head of the Ottoman Railway, on June 16th, and proceeded by slow stages to the Lake of Egerdir. After rounding its southern end we struck through the mountains in an easterly direction, and descended upon the Lake of Beisheher, whence we proceeded to Konia. From that point we turned south into the Taurus, and crossed the mountains to the valley of the Gyuk Su (Calycadnus), which we descended to Selefke. After spending a short time in the mountains north and east of that place (the district of Olba and Korykos, described by Mr. J. T. Bent in a paper read before the Royal Geographical Society in 1890), we regained the central plateau near Eregli, and proceeded by Bor and Nigde to Kaisariye. Here we left for a time Mr. Headlam, who was in bad health, and made an excursion to Gyurun, in the region of the Anti-Taurus, returning by Shahr (Comana) and the pass called Kaz (or Gez) Bel to a point south of Kaisariye. Prof. Ramsay, who was obliged to return home to resume work in Aberdeen, left me there, and, having been rejoined by Mr. Headlam, I went southward to the neighbourhood of the Cilician Gates, and thence worked westward by Bor, Nigde, and Akserai to the Great Plains. We eventually regained the Ottoman Railway at Chivril, near Ishekli, on September 2nd.

In 1891 the original plan had been that Prof. Ramsay, who had been travelling for seven weeks in the west and centre of Anatolia, should meet myself and Mr. J. A. R. Munro, Fellow of Lincoln College, Oxford, at Mersina, and accompany us into the Anti-Taurus region; but he fell ill

before reaching the coast, and was obliged to return directly to England. Mr. Munro and myself, therefore, started without him from Adana on June 27th, and, passing the mountains, rejoined the track of the previous year's journey at Shahr. We turned south-eastwards from that point in order to follow the line of the Roman military road to the east, and to explore the south of the Anti-Taurus region. We reached Albistan, and made thence what was intended to be a short *détour* through the Taurus by Zeitun to Marash, before continuing our journey along the eastern road to Malatia. An accident, however, detained us many days in Marash: the cholera also became epidemic in Aleppo, and the province, in which we were, was placed in quarantine. Accordingly, when at last able to recross the Taurus, we had lost much valuable time, and saw certain detention on the frontier before us: the wisest course appeared to be to make for the province of Sivas, where the quarantine regulations were reported to be less strict than elsewhere, and we reached the frontier at Arslan Tash, not far from Derende. There we were detained, and, on release, went due northwards by Gyurun to Sivas, abandoning our project of exploring the Euphrates. In order to examine the neighbourhood of Nicopolis we journeyed up the Halys from Sivas and crossed the watersheds of the valleys of the Iris and Lycus, the latter of which streams we descended eventually to Niksar. Thence we went to Tokat, and followed the waggon-road by Amasia to Samsun on the Black Sea, which we reached on September 1st.

As our journey in 1891 was intended to complete the work we had begun in 1890, I combine their results in the following paper; but I have left out of account the earlier part of the former journey (i.e. the route from Diner to Konia) and the end of the latter (i.e. from the Taurus northwards to the Black Sea), and confined the present report to the homogeneous subject of the passes of the Eastern Taurus. I hope some day to travel again in the interesting region of Eastern Asia Minor, north of the Taurus, and to be able to combine our notes of 1891 with the results of wider and more leisurely observation.* The first part of our journey in 1890 (which I described orally to the Society on December 8th, 1891) I have omitted in this paper, because the route which we took then, though interesting for archaeological reasons, has little value geographically, being off the direct line of traffic, and traversing no passes of importance: and also, I find that, owing to the fact that I suffered in the Pisidian hills from a sharp attack of fever, my notes are too scanty and my recollection too much confused to enable me to give an account of the region of the Lakes which could possess any independent value.

Throughout the paper I owe much to the notes and observations of Prof. Ramsay, with whom I was in 1890, and whose general principles

* Some description of our journey there in 1891 appears in Part III. of this paper.

of travel I have endeavoured to follow when not fortunate enough to be accompanied by him in person. Mr. Munro, who travelled with me in 1891, and Mr. Headlam, who joined our expedition in 1890, have assisted most materially in the following paper: the former took the photographs, shown to the Society on December 8th, and the latter almost all the barometrical and thermometrical observations recorded by us while he was of our party.

The districts visited by us in the past two years are among the most remote in Asia Minor, but only in Pontus did we explore virgin soil. The Konia district has been traversed by many before us, by Prof. Ramsay himself more than once, and by myself in 1887. In the "Low Taurus" we followed, more or less closely, the lead of Messrs. Hamilton, Laborde, Davis, Colonel Stewart, and Mr. Theodore Bent. The Anti-Taurus has been visited by Mr. Ainsworth, Sir Charles Wilson, Major Bennet, and Messrs. Sterrett and Ramsay, not to mention others less definitely bent on exploration; and our sometime-consuls traversed all important passes in the High Taurus. Asia Minor is, therefore, far from unknown, and the Geographical Society itself has heard a lucid and comprehensive account of it from Sir Charles Wilson: but nevertheless the peninsula is so large, so difficult to traverse, and withal of so varied a character in different districts, that much exploration must still be undertaken before either its ancient or modern geography can be known satisfactorily. To the archæologist it is the *terra incognita* of all others, which still hides among its mountains and under its soil the relics of a dozen civilisations: to the geographer it is a land of wild scenery and remarkable natural phenomena, a meeting-place of many races and creeds, the bridge between Europe and Asia now as in the past. No one who traverses it can avoid noting some new fact, and in the hope, therefore, that a good deal which I have to say may not be known already, I offer the following paper.

That part of the Taurus which bounds the plain of Konia and Karaman on the south forms a section easily to be distinguished from the continuation of the range west and east. From Karaman to the western end of the Bulgar Dagħ, near Eregli, the system takes the form of a great ridge, sloping gradually from the plain to a broad summit, varying from 5000 to 6000 feet above sea-level, and falling to the southern sea in a series of steps; so distinct is this section from the broken ranges south of the Great Lakes on the west, or the tremendous walls, of which the Bulgar Dagħ is the first, towards the east, that the general title of the Low Taurus may be applied to it appropriately enough; not because the elevation, which roads must attain to cross it, is much inferior to that of the passes through the other parts of the range, but because no peaks rise above the general level, and the gradual slopes give so easy a character to the hill roads, that the

evidence of the aneroid is needed to give the traveller any just idea of the height to which he has climbed.*

As the course of the roads, which traverse this section of the Taurus, is not conditioned by the presence of marked depressions or defiles, there would be little to choose between several alternative routes, all crossing at about the same elevation, if it were not for the scarcity of water in this region: the latter consideration, however, marks out certain lines which traffic has followed for many centuries and still adheres to, so far as there is any transport trade at all between Konia, Karaman, and the southern sea-board.†

These routes radiate from Karaman and Eregli, the chief centres on the southern limit of the Plains, to Ermenek, Mut, and Selefke, the

* It is reported that, whenever the Ottoman Railway Company reach Konia, they will survey a line to the sea, to cross Taurus at this point.

† See *infra*, p. 653. The vast majority of this trade now goes west and north from Konia, either to the Ottoman Railway at Diner, or to Constantinople direct. Little more than local traffic crosses Taurus.

The following altitudes are computed from observations taken by Prof. Ramsay and ourselves in 1890 and 1891, in the region north of the Taurus. Prof. Ramsay (W. M. R.) used R. G. S. aneroid No. 15, Mr. Headlam (A. C. H.) a private instrument. The heights in feet are as computed by the R. G. S. calculator from our readings of aneroid and thermometer, which I have added, wherever possible, in the second and third columns. It must be stated, however, that, wherever comparison is possible, the estimates of the surveyors of the Ottoman Railway between Diner and Konia are less than ours by from 200 to 400 feet. Ours are probably excessive all through.

JOURNEY FROM DINER TO KONIA. (W. M. R., 1891.)

	DINER.		Feet.		Deg. F.
May 29.	Jerit	3053	26·8	73·4	
	Chandir	3068	26·08	77·9	
	Duz Bel	5320	24·81	82·5	
	Menteah	4140	25·87	79	
" 30.	Sandukli	4210	25·76	77	
	Karkin	4853	25·26	84	
	Pass	7106	23·20	81·5	
June 1.	Yiprak	5026	25·07	78	
" 2.	Yasili Kaia	6260	24·04	80	
" 3.	Karadilli	4634	25·07	77	
	Aresli	4141	25·85	83	
	Geneli	3758	26·23	77	
" 4.	Karaja Uren	4084	25·96	82	
" 5.	Dere Sinek	4206	25·7	60·8	
	Midas Fount	3822	26·1	75·2	
" 6.	Ak Sheher	3720	26·24	78	
	Devrent	3773	26·24	82	
" 7.	Arkut Khan	3847	26·16	77·5	
	Ilghin	3702	26·32	81	
	Bulasan	3617	26·37	83	
" 8.	Kulitulu Yaila	3710	26·22	76	
	Shah Uren	4376	25·70	82	
" 9.	Ladik	4043	25·97	77	
	Ridge	4427	25·6	86	
	KONIA	3748	26·16	81·5	

chief towns of the seaward slopes. South of the Taurus in this region there is hardly any level country at all, the mountains falling to the water's edge, except where a river, like the Gyuk Su (Calycadnus), has thrown out an alluvial tract into the sea: it was no doubt the absence of plain and the barren character of the hills, rather than any special ruggedness, which earned for this part of Cilicia in ancient times its epithet of *Tracheia*.

The three roads which lead south from Karaman are described briefly (from Colonel Stewart's estimates) by Prof. Ramsay.* We

JOURNEY FROM KONIA TO EREGLI. (W. M. R., 1891.)

	KONIA.		Feet.	
June 10.	Elolduren		3594	26·32
	Shatir		3661	26·26
	Hair Oglu		3683	26·24
	Ismil		3738	26·19
	Marsh		3705	26·22
	Ridge		3918	26·00
	Kara Bunar		3705	26·22
	Ridge		4004	25·95
	EREGLI		4123	25·85

JOURNEY FROM BEISHEHER TO KARAMAN. (A. C. H., 1890.)

			Feet.	Deg. F.
June 26.	BEISHEHER		4220	25·74 79·5
	Gulgurun		4537	25·50 84
	Chichikler		4568	25·41 80·5
	Bulumia		5103	24·94 84
	Chair Bagh		4336	25·59 75·5
	Konia		3748	26·16 81·5
	Plain		3822	26·06 75·5
	Khatin Serai		4175	25·82 76
	Appa		4079	25·67 82·5
	Almasen		4297	25·90 75·5
	Gudelissin		4114	25·62 78·5
	Ilisra		3983	25·86 75·5
	KARAMAN		4063	{25·94} 83 {25·92}

I add here, for purposes of comparison, the following heights, communicated to W. M. R. by Colonel Stewart:—

	Feet.
BEISHEHER	3700
Kechi Borlu	3200
Tatarli	3781
Geneli	3400
Karaja Uren	3600
Chai	3550
Sakli	3550
Ak Sheher	3545
Kadin Khan	3400
Konia	3453

* 'Hist. Geog. of Asia Minor,' p. 362.

followed in 1890 a route to Mut slightly different from Colonel Stewart's, in that we made an elbow to the east in order to visit the ruins, first seen by the Rev. E. J. Davis,* on the upper waters of the Chivi Su, an affluent of the Calycadnus.

After leaving Fisandun ($6\frac{1}{2}$ miles from Karaman) about 3 miles behind us we forked left from the direct road to Mut, and ascended a stream (Ak Su ?) flowing between cliffs honeycombed with caves: from this circumstance a village in this gorge, about 10 miles above Fisandun, derives its name of Ak In, or the "White Caves": the peasants dwell in catacombs excavated out of argillaceous rock, and the huts seen by the traveller who enters the village are mere porches to the rock-dwellings behind. Similar troglodyte habitations are to be met with in Cappadocia both in the Anti-Taurus and in the region between Hassan Dagħ and Erjies Dagħ; the Kurds and Avshar who occupy valleys at an elevation of from 4000 to 6000 feet above sea-level, find that these subterranean dwellings are warmer in winter and cooler in summer than log-huts or even more substantial buildings.

The gorge of the Ak Su leads up to a desolate plateau, which swells gradually to 5500 feet, and falls away as gradually on the farther side. The dreary monotony of stunted herbage, stony water-courses, dry except when the snows melt, and hillocks, whose summits are indeed some 6000 to 6500 feet above sea-level, but hardly higher than the surrounding waste, is almost unbroken by human habitations. Not till the watershed had been left behind, and a considerable descent made in the valley of the Chivi Su, did we find Yuruk tents, and a less forbidding landscape.

A thousand feet below the watershed, however, a great and welcome change comes over the scenery: the traveller descends into open grassy valleys, fringed with pine-forest, through which run the infant tributaries of the Calycadnus. These coalesce presently in the Chivi Su, force their way through a cañon, impassable for horses, and break into the valley of the main stream.

The great valley of the Calycadnus, the most considerable in this part of Asia Minor, cleaves the mountains from north-west to south-east with a fissure twenty miles across, and fully four thousand feet deep at certain points. When we first saw the river from the brink of the northern wall we were standing at 5360 feet; we reached the water at Karadiken, below Mut, at 834 feet. Mut itself is 1479 feet above sea-level, situated on a shelf which projects towards the river from the base of the sheer wall.

The lower slopes of the northern and southern walls are thickly clothed with a forest of pines on the higher ground, and ilex, wild-olive, arbutus, lentisk, juniper, and other kinds of dense undergrowth on the

* 'Life in Asiatic Turkey,' p. 325. See *infra*, p. 652.

lower. We found the temperature in the bottom of the valley, owing to the dampness of the atmosphere, more oppressive than anywhere else in Anatolia: at the village of Yapanli (1007 feet), 5 miles north of Mut, the thermometer registered 106° in the shade at 4 p.m., on July 6th. The peasants of the valley go for the most part to *yaila* on the heights during summer to find pasturage and good water for their flocks, and to escape mosquitoes and fever. On the southern wall, however, where the villages are singularly rich in orchards, the peasants appear to be more stationary, probably from habit engendered by the necessity of guarding the fruit-crops. All are Musulmans with the exception of a small Greek and Armenian colony, established recently in Mut, and a solitary village, Ala Klisía, about 20 miles distant from Mut on the southern wall, inhabited entirely by Christians: we found that this isolated community had lately built themselves a church, in which they worshipped according to the Orthodox rites, but only the priest (a Samiote) spoke Greek. A ruined church, hard by the new one, seems to date back to the ninth or tenth century A.D., and the tradition of the villagers is that they have inhabited Ala Klisía, isolated from kinsmen or co-religionists, ever since the conquest of the valley by the Musulmans. The facial type is quite distinct from that of the latter, and is characterised by clear-cut features, large brown eyes, and crisped hair.

There seems no reason to doubt that in Ala Klisía we have a remnant of the Isaurian church, dating back to the days when the great monastery of Apadna was founded on the opposite side of the valley (see *infra*); and that its peasants rank with other interesting survivals of pre-Musulman populations in Asia Minor, who for the most part profess the Orthodox faith, though they retain little enough even of the form of its rites and nothing of its spirit. Instances of such "Greeks" are to be found at Permenda, near Ak Sheher, at Isbarta, Olu Borlu (Apollonia), and on the island of Nisi in the Lake of Egerdir, but they have little enough Greek blood in them and are in the main descended no doubt from the Pisidian mountaineers, who troubled successive masters of Asia Minor, even in Roman times. The colony on the island near Egerdir has a peculiar interest, as being perhaps descended from those Christians who in 1142 resisted the Emperor John Comnenus, preferring Musulman domination to Byzantine.* Mr. Headlam and I visited Nisi in 1890, and found that the Christian community had dwindled to about fifty families, living among a larger Musulman population. They have a new church, served by two *papas*, who represent as low a grade as Orthodox clergy can fall to in a Moslem land: neither priest spoke or

* Nicet. Chon. 50, Cinnam. 22, and see Ramsay, 'Hist. Geog.', p. 389, who, however, is inclined to place the islands in question in the Beisheher Lake. Prof. Gustav Hirschfeld visited Nisi in 1874, and mentions it in *Zeitschrift d. Gesell. f. Erdkunde zu Berlin*, 1879, p. 292.

to the north, on a precipitous hill called Sinabich is a *sacra via* with inscribed sarcophagi and a wilderness of ruins, probably those of the Byzantine bishopric Dalisandus.* Following the direct road back towards Karaman, the traveller, who halts at a fountain about 12 miles from Mut, sees high up on the hill to his right a great grey ruin. This is the monastery, now known as *Koja Kalesi* (*Alaja Kalesi* of Laborde), probably that called Apadna in ancient days, which Procopius† states to have been *restored* by Justinian I. A tomb within the precinct bears date 461 A.D., and the architectural features of the church, whose shell is almost intact, are uniformly of a century as early as the fifth, and perhaps the fourth.‡ There is little trace of Justinian's restoration, and we may regard this as the earliest church in the Eastern world which retains its primitive form and architectural features: indeed, the singular absence of Christian symbolism, and the ornamentation both of the church and the other ruins, suggest that *Koja Kalesi* was built while heathen traditions were very vigorous. The main features of the church are its basilica-form, combined with a Byzantine central tower, its beautiful monolithic columns and Corinthian capitals, its galleries within and without, and the ornamentation of its three square-headed western doors. It stands at the eastern end of a shelf under the topmost cliff of the northern wall of the valley: west of it are extensive remains of the monastery buildings, and of a portico open to the south, surrounding the court before the church. The whole is entered from the west by a remarkable gate, richly ornamented on the outside, and bearing winged figures carved in low relief on the inner side of its posts. The perfect preservation and singular character of the church, the extent of the monastic buildings, and their remote and beautiful situation, make *Koja Kalesi* better worth a visit than any Christian relic that I have seen in Anatolia.

Only less interesting are the ruins of a large city already alluded to as those first seen by the Rev. E. J. Davis, about 15 miles to the northward, below the *yasla* of Kestel, a little to the east of the direct road from Karaman to Mut. Here we have another early church crowning the site: south of it can be traced a long street, flanked for some distance by colonnades and by a bewildering mass of ruined houses, churches, and public buildings: this leads to the citadel, of which the square towers and curtain-wall are standing on two sides, while the enceinte of the town-wall can be traced round almost the entire circuit. Outside are many tombs, arched structures and sarcophagi. Nothing on the site is early;

* Ramsay, 'Hist. Geog.', p. 367. See a paper by Mr. A. C. Headlam in 'Journal of Hellenic Studies.'

† De aedif., v. p. 328, ed. Bonn.

‡ This is the opinion of every architectural authority who has seen our plans and photographs. We have published a full account of this monastery in the 'Journal of Hellenic Studies,' to supplement the imperfect description of Laborde, the only other explorer who has seen the ruins. He travelled in 1826 in this district.

The modern upper road passes by Zeine, Ala Klisia, and Gyuk Belen, which is a summer *yaila* of Selefke.* After ascending to about 3000 feet, it runs along the north face of the southern wall, winding round the heads of the valleys, and at Gyuk Belen penetrates through a nick in the wall and joins the unfinished waggon road from Selefke to Ermenek. From this point the well-wooded, well-watered hill-side is exchanged for a series of stony arid steps, down which the road winds and enters Selefke under the south side of the castle.

Laborde noticed but did not examine closely the remains of an aqueduct between Ala Klisia and Gyuk Belen: † unfortunately this fact was not known to us till after our return, and, attracted by the report of a *Kalé* in the opposite direction, we left the main road at Ala Klisia, struck into the hills to the south, and discovered in a glen about eight miles away a small temple in *antis* and the ruins of a Roman village. Thence we crossed the mountain wall to Aine Bazar, a *yaila* of Kelendri (18 miles south), and next day travelled to Gyuk Belen along the Ermenek road, south of the wall.

An aqueduct would not exist unless the site of some considerable city existed also not far away, and it is natural to infer that we might have hit on the ruins of Diocaesarea had we kept to the main road south-east from Ala Klisia.‡ It is not easy, however, to make out where Laborde actually saw this aqueduct, nor how near he approached to it. The Austrian explorers, Messrs. Heberdey and Wilhelm, have been in this district since our visit, and report no discovery of any considerable site: the ruins of a hill-fort, which they saw, seem to be those which we found on the brink of a rocky bluff overlooking the valley from the south: they are just to the left of the direct road from Ala Klisia to Gyuk Belen, seven or eight miles from the latter. Several courses of finely-squared and fitted masonry are standing, and there is a fortified approach from the north. Some rock-cut tombs and sarcophagi bear crosses, and are proved therefore to be of the Byzantine period, to which general considerations would naturally lead an archæologist to assign the fort itself.

Interesting also to archæologists are the considerable ruins at Mut, where we found an inscription confirming at last Colonel Leake's § guess, made ninety years before, that it was anciently Claudiopolis. Six miles

to recross the river before reaching Seleucia. He did so, however, and was drowned in it (though Tageron does not tell us so). I would suggest, therefore, that he took a road keeping nearer to the river, but was obliged to climb the hills at some points to avoid the precipitous gorge; and to reford the river somewhere before it emerges from the mountains. A low road is said to exist now, but no European has explored it.

* See Ramsay, 'Hist. Geog.,' p. 362, note 1, for Colonel Stewart's distances and altitudes along this road.

† See his 'Voyage en Orient,' p. 123.

‡ Ramsay, 'Hist. Geog.,' p. 364.

§ See his 'Asia Minor,' p. 117.

former road. The lower slopes on the sea face have been described by Mr. Bent, who visited Uzunja Burj and Maghra in 1890, and a few of the additions or corrections, geographical or archæological, which we had to offer with regard to his report were incorporated in his map and the articles written by himself and the Rev. E. L. Hicks in the 'Journal of Hellenic Studies.' The features of Olba, of Ura, of the hill-fortresses, the cave-shrines, the scattered *hiera* and *heroa* in the Lamus valley and on all the slopes, and the great chasms near Corycus have been set forth, though not very fully, by Mr. Bent, whom good fortune led to a veritable Pompeii, many miles in extent, left to decay on the desolate hills when the artificial water-channels fell into disrepair. With only a few brackish wells, and hardly any perennial streams, wandering Yuruks alone are able to maintain a precarious existence on this rocky waste. Nature is more slow to destroy than man, and thus have been preserved for us between Olba and the sea the Roman roads, towns, and villages, almost as they were when the Arabs first began to harry Cilicia. I will make especial mention here of one thing only in this wonderful land of the dead, because it is of distinctly geographical interest, namely, the paved road which connects Olba with Corycus. For 25 miles almost every stone of the pavement is in its place, and the milestones lie by the roadside or stand *in situ* recording the distance from Corycus and the titles of Emperors who restored the road. After leaving Jambazli it runs along the crest of a spur, passing through groups of ruined houses or tombs at every three miles or less; the traveller looks down on either side on villages showing white among the undergrowth; and, attaining the brink of the lowest shelf, can see the finely engineered curves of his road winding past tombs and hill-forts to the walls which still stand round Corycus. If ever Asia Minor becomes a land in which Europeans travel to see the marvellous, the district enclosed by the Lamus, the Calycadnus, and the sea will become famous: the ruins of Olba are the most remarkable in the peninsula, except those of Hierapolis on the Lycus, and perhaps of Adada at Kara Bavlo in Pisidia, whose lonely situation makes it as strange as, though in extent it is inferior to, the Cilician city: but Olba is only one, if the chief, among a score of sites in Cilicia which remain to bridge the gulf between the old Asia Minor and the new! *

* A more careful examination, than has yet been made, of these and other ruins in Cilicia is needed to determine how much of the standing walls and towers belong, like the citadel of Coropisoes, to the *Armenian* period. Corycus (Gorrhigo) played a great part in the guerilla warfare of Christian and Musulman, while protected by kings of Cyprus, or knights of Rhodes, in the thirteenth, fourteenth, and fifteenth centuries. The conversion of the temples at the Corycian cave and Olba into churches probably dates from this period; and the paved road, described above, seems to have been repaired at a late date, to judge by the fragments of columns, &c., built into it. In fact, a large proportion of the remains in Cilicia, ascribed by Mr. Bent to the Pirates, may belong rather to the Byzantine or Armenian period.

Two other roads of some importance traverse the Low Taurus; one leads from Karaman direct to Mersina, and passes through Korash.* The other crosses this at Korash, in its course from Eregli to Maghra, a village situated on the Karaman-Selefke road. We followed this track in 1890: it coincides for 10 miles with the Karaman post-road, then leaves the plain and strikes over bare swelling hills to Divle, a large Turkish village. From this point to Korash, a double village on a stream flowing towards Karaman, the ascent is gradual and the landscape treeless and uninteresting. Three miles further a park-like grassy country, thickly studded with cedars, is entered, and the ascent becomes steeper up to Perchin Bel, the watershed between the Plains and the Mediterranean: the fine grazing land attracts to this spot a large Yuruk *yaila* in summer-time. The road now lies for some distance down the course of a stream whose banks afford rich grazing, on which large herds of horses and camels are maintained in summer. This stream flows to the Lamus.

After following the water for about five miles, the path climbs over the bare hills on the left bank and descends a rocky gorge to the Selefke road, which it joins rather more than six miles above Maghra.

The following are rough measurements and altitudes on this road:—

Miles.		Feet.
—	EREGLI	4123
20	.. Divle .. .. .	..
27	.. Hamza Yaila, a little to right of the road ..	..
43	.. Korash .. .. .	..
50	.. Perchin Bel	6350 (?)
53	.. Stream .. .. .	..
60	.. Summit	6200 (?)
71	.. Maghra road .. .. .	..
77	.. MAGHRA	4590

The native estimate is 24 hours for the whole distance: we wandered a little from the direct path between Hamza Yaila and Korash, but not enough to vitiate seriously the measurements given above. The abundance of grass on the eastern half of the Low Taurus as compared with the western is very remarkable, and speaks to a colder climate; we recorded, indeed, much lower sunrise temperatures than on the Mut road, viz., 48° on July 20th at 6200 feet, and 47° on July 21st, at about 1000 feet lower.

The High Taurus begins again with the Bulgar Dag, which extends

* Colonel Stewart communicated the following observations, taken on the direct road Mersina-Karaman, to W. M. R.:—

	Feet.
Mersina	Sea-level.
Chatal Cheshmé	2550
Dumbelek Pass	7000
Kuchuk Korash	5000
Karaman	3262

from a point west of Eregli to the Cilician Gates. The northern slope is precipitous, and there are no important gaps in the long crest; the average elevation is about 10,000 feet, and the summits are never quite free from snow. The Bulgar Dagħ rises like a wall out of a lacustrine plain which is the easternmost extension of the Axylon country: north and east of the basin are mountains, the Hassan Dagħ, an extinct volcano, and the Ala Dagħ, the first and highest of the north and south ranges which have received the general name of Anti-Taurus. Its central peak, a square tower of rock so steep as to admit of snow lying only in crevices, is only a less conspicuous object than the cone of Erjies. Two outlets from the lake-basin exist, one in the north-east corner, where, by crossing a depression between the Hassan Dagħ and the foothills of Ala Dagħ, the traveller attains to the plateau south of Erjies: and in the south-east corner, where the valley of a tributary of the Zamanti Su leads to the Cilician Gates.

This eastern corner of the Great Plains is a region interesting both to the geographer and the archæologist: among its remarkable natural phenomena are a great spring, which emerges as a full-grown river from under the Bulgar Dagħ near Ivriz, flows down through a paradise of verdure to Eregli, and the lake in the lowest part of the plain, and, in winter, flows out on the north, plunges into a chasm, and is seen no more; and again the boiling pond near Ekuzli Hissar, once sacred to Zeus Asbamaeus, and still resorted to from far and wide by all afflicted with skin diseases. The archæologist recognizes in this plain the *Tyanitis*, ruled formerly by the priest-dynasty of the city of Tyana, whose remarkable ruins may be seen in the north-eastern corner at Ekuzli Hissar, of all sites in Asia Minor the most tempting to the excavator. Someday it will be shown perhaps that this priestly kingdom preserved to a comparatively late time the earliest written character—the so-called "Hittite" script—used in the peninsula, together with the seat of one of the earliest worships: the great rock-relief of Ivriz, erected probably by the Tyanean priests, is too well known to need more than mention; and we have now published other monuments, hardly less remarkable, from Tyana itself, and its silver-mines in the Bulgar Dagħ.*

The High Taurus may be said to extend for 250 miles to the Euphrates, on which it abuts between Malatia and Samsat. The Anti-Taurus is an integral part of it in the same sense as the ranges about the Great Lakes further west: in both cases the watershed has been shifted far to the northward, and the streams seem to flow *through* the Taurus from the north, instead of down from its seaward slopes. This is a phenomenon particularly remarkable in the case of the Zamanti Su and the Jihan, which rise in the levels north of the main chain, and

* In the 'Recueil des Travaux relatifs à la Philologie,' etc., vol. xiv., edited by Professor G. Maspéro.

strike straight through the hills by gorges often impassable even on foot. In the Anti-Taurus region, however, the east and west line is preserved better than south of the lakes, and both from the north and the south presents the appearance of a wall cleft transversely by three great rivers, the Zamanti Su, Saros or Seihun, and Jihan.

Through the whole system from the Bulgar Dagħ to the Euphrates, nature and man have rendered only six roads practicable for anything less agile than a goat or a Zeitunli Armenian.* These are, in order, the Cilician Gates: the pass leading from Sis into the Anti-Taurus, and bifurcating to Feke and Hajin: the three routes which radiate from Marash to Gyksun, Zeitun, and Albistan (the last two coinciding for more than 20 miles): and a pass, approachable either from Marash or Samsat, and leading by Behesne to Pulat and Malatia. The last-named defile and that from Marash to Gyksun I have never traversed; but as the others, important in ancient times and still much travelled, have not been so fully described, so far as I know, I will give some particulars of them here.†

1. Sis lies at the extreme northern limit of the Cilician plain country, two days' journey from Adana by a newly constructed but unfinished *chaussée* chiefly notable for the ruinous condition of its bridges, entire absence of villages, and great scarcity of water. No light *arabas* travel upon it, and the roadway is disappearing fast in the more marshy parts of the plain north of Sai Gechid.‡

* For example, this is said to be the character of the so-called road from Fraktin or Ferak-Din to Adana.

† All are described to some extent in Ritter's 'Erdkunde,' vol. xix., mainly from the accounts of Von Moltke, Tschihatcheff, Ainsworth, and Von Vincke, compared with native geographers, of whom the most important is the Armenian Injijian.

‡ We were so short a time in this plain (for we hurried to the mountains to escape June heat) that I cannot supplement to any purpose the account recently communicated to the Royal Geographical Society by Mr. Theodore Bent. I subjoin, however, some observations and notes of the Sis road:—

Miles.			Feet.		Des. F.
—	ADANA		296	29·50	88
7	Summit		500	29·30	..
21	Well below Buruk		411	29·40	..
23	Plateau		689	29·10	..
28	Summit		1141	28·65	..
31½	Khan Dere spring		807	29·10	87
38½	Sai Gechid		500	29·30	89
47	Turmulu Chai bridge .. .. .		..	..	..
55½	Sis bridge .. .. .		..	..	..
56	Sis (Serai)		755	29·15	87

The estimated distance—14 Adana to Sis—quoted from Major Bennett by Prof. Ramsay ('Hist. Geog.,' p. 281), is by a different and shorter road. His readings are—Adana, 125 feet; Sis, 500; Missis, 100; Marash, 230 or 2200.

The plain near Adana is highly cultivated. English agricultural machines have been introduced, and cotton-growing encouraged. The low ground near Sis is undeveloped, but would grow rice or cotton in abundance, as do the Lycus marshes near Niksar. We found many Yuruk camps on the plains, despite the scanty water-supply and the prevalence of fever and insect pests. The highest temperature, recorded by us, was 94° Fahr. at 4 p.m. on a thunderous afternoon on June 28th at Sis: at night the mercury hardly fell below 80°. The temperatures do not seem high, but the damp makes the air very oppressive, and we experienced much depression and lassitude during the four or five days we spent on the plain.

Sis, the capital of the kingdom of Lesser Armenia in the 13th century, and still the titular see of a Catholicos, is a decayed town of not more than 3500 inhabitants, almost exclusively Armenian Christians. The houses (many of them mere ruins) are widely spaced over the eastern slope of the isolated castle hill. A massive building, once a church, but now a Moslem *tekké*, half-way up the castle rock, and old houses here and there in the lower town, testify to better days. It is still the capital of a *sanjak*, and probably the smallest town in the Ottoman Empire which enjoys that dignity.*

Two important roads converge, shortly before reaching it, that from Adana, already mentioned, and one from Missis and Osmanie, which communicates with Alexandretta and the south country. On leaving Sis the united road strikes due north into the hills and surmounts the first rocky ridge (1300 feet) after a course of two miles. A mile further it bifurcates, the left-hand path going to Feke, the right towards Hajin. We followed the latter,† keeping up on the mountain side and ascending gradually to a low *bel* (1470 feet) whence an abrupt descent brought us to the Kirgen Su (940 feet), a tributary of the Saros. The road then ascends the valley for about twelve miles, crossing and recrossing the rapid stream by shallow fords.

The valley is very hot in summer, and infested with insect pests, but of wonderful beauty, enclosed by lofty crags and filled with various forest growth. It appears to contain no villages, only a mill or two, and in some years a *yaila*. On attaining 1500 feet, the path strikes up the steep eastern slope, at first by zigzags for 750 feet, then more gradually through pine woods to 3200 feet, whence a slight descent is made into a grassy valley which stretches to the foot of the first main

* Sis is very fully described in Ritter, vol. xix. pp. 67-96: our stay there was very short, owing to the heat, and we have little or nothing to add to Ritter's account.

† Briefly described, on the authority of Colonel Stewart and Major Bennet, in 'Hist. Geog. of A. M.,' p. 281.

chain of Taurus, and is studded with scattered Yuruk huts to which the name Tapan has been given.

The ascent of the main chain to the Kiraz Bel (5130 feet) is abrupt, and, after a small grassy hollow has been crossed, there is an almost equally abrupt descent on the north side to the Saros, whose tremendous *cañon* must be crossed before Hajin can be reached: the town is seen from the brink of the valley, but at a distance of at least five hours' ride. The wooden bridge which spans the deep, wildly rushing Saros (2300 feet) is reached in 2½ hours, and the river can be seen emerging from one pathless gorge and disappearing again into another, even more impassable. Although nature has pierced these mountains in three places, not one of her ways can be trodden by loaded animals, and the roads climb laboriously from spur to spur instead of following the valleys. The path from the Saros bridge to Hajin ascends by easy gradients to 3200 feet; some attempt has been made to construct a *chaussée*, but, as none of the more difficult portions of the track have been dealt with, it is quite useless.

From Sis to the Saros the path traverses a wild and beautiful country, destitute, as it appears, of permanent villages and inhabited only by nomadic Yuruks. Water is abundant all along the line, and the valleys contain good pasturage. Though a Roman, or at least Byzantine, road * must have followed the same route, we could detect little or no trace of it—nothing more than abutments of a bridge and a little pavement in the Kirgen valley, not necessarily pre-Turkish, or at least pre-Armenian. After the Saros has been crossed, Armenian settlements appear, and the hill-sides are planted with vines, whose grapes are used as food only and constitute, when dried, or boiled down to a paste, the staple relish of the Hajinlis. Hajin† itself contains about 10,000 Armenians, and a few Musulmans: the town hangs, house upon house, on the sides of a steep hill, jutting southwards into the valley: all denominations are represented, Gregorian, Catholic, and Congregationalist Protestant, supported by a small mission station served by American ladies. The inhabitants are the most miserable and poverty-stricken population that I have seen in Turkey, equally devoid of the spirit and daring of the Armenians of Zeitun, and the commercial enterprise and capacity of those of Marash or Kaisariye. The lowest type of Turkish official seems habitually to be banished thither, and it is one of the few administrative centres still destitute of a telegraph. The Byzantine station of Badimon was not far from Hajin, but the present Armenian town is said not to be of great antiquity. There is no trace of it in the chroniclers, Christian or Musulman, of Lesser

* See 'Hist. Geog.' *l.c.*

† A view of Hajin, taken from the path to Urumlu, is given in Tohihatcheff's Atlas.

Armenia or of the later Byzantine Empire, and it seems probable therefore that, like Zeitun, it was a city of refuge colonised by broken Armenians after the collapse of their Cilician kingdom in the 14th century.* It must, however, have been far less successful than Zeitun in maintaining its independence of the Ottomans.

North and north-west of it are several Christian villages, Armenian and a few Greek, all miserably poor. In the open valley of Shahr Moslem Circassian refugees have been settled in large numbers, and like all new-comers from the Caucasus, enjoy a very bad reputation for maltreatment of Christians. I will return to the subject of these refugees and their relations with the Armenians when treating of the Anti-Taurus, which may be said to begin with the plateau of the upper Saros (5200 feet): to which the north road ascends in two hours from Hajin.†

2. The next pass to the eastward, is that from Marash to Gyuksun (the ancient Cocusus) which lies in a depression between the wall of Taurus and the end of the eastern Anti-Taurus range, the Bimboa Dagħ.

I have seen nothing of this route except its last section in the Gyuksun plain, but can record the concurrent testimony of several natives of Gyuksun, of the Hajin Americans, who traverse it frequently, and of both Americans and Armenians of Marash, that it is now by far the easiest road through the Eastern Taurus.‡ The gradient on the south is said to be remarkably easy; that on the north is certainly not particularly steep. The pathway is said to be *düz*, i. e. level; the

* Ritter (xix. p. 157) asserts positively that Hajin and Zeitun were founded by Armenian exiles after the surrender of King Leon at Gaban in 1375; but he quotes no authority and is probably arguing from the silence of the chroniclers. I failed to hear of any native tradition which might establish the point; the Rev. T. Christie of Marash says, however, that the general Armenian belief there coincides with Ritter's statement. Armenians were settled in this district in the eleventh century, for "Yahga," which Roupen took, is probably Feké, and other fortresses, mentioned in Armenian chroniclers, e.g. Pardzept and Goromozol (founded by Roupen), belong to the Hajin district. Hajin may very well have been originally a Roupenian village, which emerged from obscurity when the mountains, which had been deserted for the rich southern plains, were once more filled with Armenians. We saw a castle outlined against the sky on a lofty peak west of the Feké road, some ten miles north of Sis: this may be Pardzept, taken by Roupen, and later made a treasure-house of the kings of Sis.

† The ancient road, Hajin-Gyuksun, is described briefly by Sterrett in his 'Epigraphical Journey,' p. 239. I have not traversed it.

‡ Von Moltke travelled from Marash to Gyuksun on his way north from the battle of Nisib. He describes his road as difficult ('Briefe, etc., in der Türkei,' p. 398); but he had not seen the other passes through Taurus except those near Malatia. He also had to take an unfrequented route to avoid the Kurds and Turkmen, and may not have travelled by the ordinary caravan road at all, but by some mountain path.

distance is stated at eighteen hours, and no villages, but only summer *yailas*, are reported on the route. The Rev. C. H. Robinson, who crossed this pass in the early part of 1892, confirms (in a letter to me) the view, here recorded, of the easy character of the route; he also mentions a Christian village, Takir, on its some sixteen hours from Marash; but he wandered so much from his road in the snow that I cannot be sure that this village is on the direct path. Considering the difficulties of the Albistan-Marash route, and its greater distance from Kaisariye, the ancient centre, it is remarkable that that pass should have been so much more important in ancient times than the Gyksun-Marash road. The latter was taken by the Emperors Basil in 877, and by Romanus Diogenes in 1068, but the former had to cut his way through the forests along an evidently little-used track. The explanation of the invariable use of the more easterly pass probably lies in its having been the more direct in early times when Pteria, not Mazaca-Caesarea, was the capital. The monuments found by us at Arslan Tash and Izgin point to the existence of an early civilisation on the line of a road leading due north from the pass, which would condition the course of the great south road in after ages, as the great cities in northern Cappadocia conditioned the course of the Persian Royal Road, long after their civilisation had become a thing of the past. It must also be noted that the difficulties of the *modern* Albistan-Marash road are probably far greater than those of the *ancient*. (See *infra*, p. 668.)

3. The other routes leading northward from Marash were traversed by us in 1891. They coincide as far as the Jihan bridge, 21 miles: to avoid a long *détour* the north road crosses by very steep and rocky gradients the Akkar Dag, which rises 3000 feet above Marash. The Jihan is thus reached, and its left bank followed for about four miles to a small *devrent* built for the protection of travellers, and especially to guard the bridge, so often destroyed by the Zeitunli Armenians, and rebuilt for the last time about a year ago. This place is called Paj. The Jihan (anciently the Pyramus) is the most considerable river which flows to the Mediterranean from Eastern Asia Minor. Rising as it does from springs of extraordinary volume, and being joined almost immediately by the Sogutli Irmak, the Khurman Su, and the Gyuk Su, it is an unfordable stream almost from its birth: we rode through its tributary, the Khurman Su, with some difficulty near Izgin, but could not have forded it three miles lower down after the great springs west of the village had added their contribution. The Gyuk Su comes in on the right about five miles lower still. Throughout its course the Jihan is of an ochre tint, and extremely rapid, its fall being 2000 feet in (about) 80 miles. At the bridge of Paj, 21 miles from Marash and about 80 miles from the source, we estimated the width of the main channel in mid-summer (July 30th, after a spell of fine weather) at 150 feet, and it was evident from marks on the banks that in spring it flowed at that point

fully 400 feet broad. In spite of the amount of earth held in solution, its water was quite drinkable in July.*

The roads to Zeitun and to Albistan diverge at this point.

a. That to Zeitun crosses to the right bank of the Jihan by the Paj bridge, which spans the main channel by the help of a pier of mortared masonry, resting on a rock in mid-stream. A causeway of similar construction with one opening carries the road across the spring-flood bed; the roadway is of wood, with a rail on each side. The whole structure is flimsy, and not sufficiently elevated above the water.

The path soon leaves the Jihan and follows the course of a tributary stream, the Zeitun Su, for about four miles through sparse, stunted forest: in order to cut off a corner it then climbs the slope of the left bank and proceeds over a cultivated plateau, passing at three miles a hot spring called Ilija Hamam, whose waters we tested, and found to be 104° Fahr.; it emits a smell of sulphur, and is of a greyish tinge. The Zeitunlis, who suffer much from skin diseases and scrofulous maladies, value it highly. From that point to Zeitun the path keeps at about the same level, rounding the heads of earthy gullies which run down to the Zeitun Su.

The population of Zeitun is reported to be about the same as that of Hajin, and the town hangs in the same way on three sides of a spur jutting northwards into the gorge of the Zeitun Su; at the extremity is a castle. The town, however, extends more over the hill behind the spur, is more picturesque, better built, cleaner, and more alive than Hajin. On a hill which commands it from the south-west the Ottoman Government have built a fort and battery, connected by telegraph with Marash. The slopes of the gorge on both sides have been covered by the energetic Armenians with vineyards, orchards, and corn-fields wherever nature allows, and few prospects in Asia Minor are more charming than this magnificent valley, with its tumbling stream, scattered gardens, and the picturesque town perched on an eyrie above. We found it hard to realise that in this smiling region more trouble had passed during the last century than in any other part of Asia Minor.

So, however, it is. Zeitun has been the robber-town *par excellence*, a thorn in the side of every Pasha of Marash, the fighting remnant of the independent kingdom of Lesser Armenia, whose last prince was captured in 1375 at Gaban, not far from the point where the Jihan emerges from Taurus. The facial type and spirit of the free Armenians have survived here: tall, handsome, though somewhat sharp-featured, agile as goats and brave as lions, the Zeitunlis maintained their independ-

* See for a description of the Jihan at its source, Von Moltke, 'Briefe, etc.,' p. 329. The Jihan Pass was important as a trade route in the time of Leon II. of Armenia (1199); for he reserved it, with three other passes, for certain seigneurs, when he leased the customs of his kingdom to the Genoese (Dulaurier in Armenian vol. of 'Recueil des Hist. des Croisades,' intr. pp. xxvi. xeviii.).

ence till some fourteen years ago, when the Turks made a great effort to break their stubborn backs, and built the fort which now commands the town.* They have more than once been saved from sterner chastisement by the strenuous mediation of the American missionaries at Marash, one of whom, the Rev. T. Christie, at one crisis rode the four days' journey from Marash to Aleppo in a day and a half in order to carry a letter of remonstrance to the Vali of the province. The Zeitunlis, indeed, are not quite subdued yet: hardly a year ago they were in open revolt, and were saved from bombardment by the Americans. The cause, in the last instance, seems to have been injudicious conduct of the former Pasha of Marash; and fuel was added to the flames by a report that a Government doctor who had been sent to vaccinate the children was really a poisoner.† Spies were murdered, the Paj bridge burned, the passes blocked, and guerilla warfare begun; but a display of force and mediation brought in all but the boldest brigands in a few days, and the energetic measures taken by the Government, who promptly arrested the bishop and other notables, have resulted in the place being cowed for the present.

From their own point of view the Government has been justified in showing severity towards these obstinate Ishmaelites, who in the days of their *dere beys*, and more recently under Babic and other descendants of the native princes, have blocked the passes and grievously impeded communication in the Taurus. Peace and quietness are not likely, however, to be secured permanently, so long as a policy of simple coercion is practised towards a people so vigorous and proud as the Zeitunlis; if the Porte would replace the old chiefs by a Zeitunli *Kaimakan* acceptable to the natives, and allow the Zeitunlis to collect their own taxes and pay a fixed percentage to the Pasha of Marash, there would be some chance of peace in this hornets' nest. So long as they hold the fort the Turks can command the town, but unless a policy of conciliation is carried out they will have continual trouble in the passes and outlying districts. A limit should also be imposed to the encroachments of the Circassians from the direction of Funduk.‡ An amicable arrangement might then close a struggle which has been carried on with energy and courage on both sides; and an interesting remnant of the mediæval kingdom would not be utterly obliterated.

* The history of their troubles, up to about 1856, is told briefly in Ritter, vol. xix., pp. 158 ff. 37.

† This was apparently a wholly unfounded accusation: Zeitunlis, men, women, and children, are impregnated with hereditary disease, aggravated by centuries of close inbreeding; some of the more weakly infants died of their vaccination sores simply owing to badness of blood. Of this I was assured by Armenian doctors, who would not have excused the Ottoman Government had they really thought it guilty of a sinister intention.

‡ See below, p. 676.

The early history of Zeitun is wrapped in obscurity. The only Byzantine town, to which it could correspond, is the "famous" fortress Adata * or Hadath, evidently a place of great strength on the north road from Germanicia (Marash). Prof. Ramsay thinks, however, that Adata was nearer to Marash and the mouth of the pass than Zeitun (see *infra*, p. 668); and it must be admitted that the latter town seems to contain no vestiges of antiquity. If it was originally an Armenian foundation it may be one of the robber towns from which the Roupenian princes descended in the eleventh century, or a city of refuge, founded by the Christians in the fourteenth century, after Marash had been lost. Like Hajin it is never mentioned by chroniclers before the fall of the kingdom, nor does it occur in any list of Armenian strongholds.† As Ritter states (xix. p. 157), this remote and defensible valley was the natural place for the broken Armenians to fly to after they had lost Gaban; but (as in the case of Hajin) it must be remembered also that all the line of Taurus from the Cilician Gates to Khesun and Behesne was occupied by Armenians in the eleventh century, and numerous villages must have existed which remained nameless till the Armenians returned northwards in the fourteenth century. Also, as the story of the banishment of St. John Chrysostom at Gyusun shows, these hills were full of robber strongholds in the fifth century. It is hardly safe therefore to argue either from negative evidence or vague tradition that there was no settlement at all in the inviting vale of Zeitun before the fall of Gaban in 1375: though no one will contest the assertion that all the importance of Zeitun as well as Hajin dates from that catastrophe.‡

On leaving Zeitun the path descends to the water again, crosses it by a stone bridge, and immediately ascends the right bank by a series of steps and zigzags to avoid the gorge from which the stream emerges at this point. This difficulty passed, the traveller continues to climb more gradually up the narrowing gorge, and crosses and recrosses the water several times. Before him he sees the snow-streaked cliffs of Beirut Dag (a section of the main chain of Taurus) round whose western shoulder he must go. Emerging at last at the head of the valley, he finds himself at 7450 feet on a spur of the mountain, but must cross a depression 700 feet deep and reascend again to a *col* over another spur equally high, before he is well round the corner. Since leaving Zeitun he will have seen no village of any

* 'Hist. Geog.,' p. 278.

† Such as that given on pp. 636-8 of the Armenian volume of the 'Recueil des Hist. des Croisades.' The list enumerates the seigneurs present at the coronation of Leon II. on January 6th, 1199.

‡ Paul of Aleppo ('Travels of Macarius,' p. 451) refers to Zeitun as "the well-known Armenian town." He gives a vivid picture of the difficulties of the Albistan-Zeitun-Marash road.

kind ; in summer a small *yaila* is established left of the road near the Ala Bunar, not far from the crest of the first spur : the gorge is exceedingly narrow and precipitous and the path often perilous enough. A steep but not difficult descent leads from the second summit down the *Beirut Jebel* passing a *yaila* right and another left, 10 minutes and 30 minutes respectively from the highest point. Snow was lying in patches on the northern slope of Beirut Dagħ as low as 8000 feet on July 10th. The highest point of the mountain must be between 10,000 and 11,000 feet. At the northern gate of the pass is a little Musulman village, Erejik, garrisoned by about 40 Arab soldiers, intended to shut the Zeitunlis from the rich plains. The foothills which decline to the Gyuk Su and Jihan from this point, are inhabited by Turks and Circassians ; the lower levels are exceedingly rich, both in arable and grazing land, and are dotted with numerous villages. The Khurman Su is crossed five or six miles from Albistan by a rickety wooden bridge. The features of the plain of Albistan may be considered more appropriately in connection with the Anti-Taurus.

b. Beautiful as the Zeitun route is, it is eclipsed by the grandeur of the Jihan gorge, through which passes the *direct* track from Marash to Albistan. It diverges from the Zeitun road at Paj, and keeps to the left bank of the river, proceeding for about six miles along easy slopes or the grassy strip which borders the water. All at once, this belt of turf ceases and the sides of the gorge, which have been gradually rising higher, approach and enclose the stream between walls of rock 2000 feet high. On the right bank hardly a goat could clamber : on the left a fringe of fallen rocks affords a possible passage for about a mile, until a great rock which juts from the mountain wall and falls 800 feet sheer to the water bars the way. Right under this rock we saw the ruins of a bridge, whose abutments on either bank and pier on a rock in midstream remain : the masonry appeared to be Byzantine so far as we could judge from a little distance (for the bridge is absolutely cut off from approach by the precipitous nature of the banks) and it was obvious to us that the ancient road was carried, perhaps by artificial embankment, to this bridge, across the Jihan, and then along the right bank, which presently becomes more practicable. In this way it avoided the great jutting crag which we had to ascend by a ladder rather than a path, and descend by a way hardly less difficult. This part of the road is known far and wide as the *Kussuk*, the most precipitous path through the Taurus : its difficulties add at least one and a half hours to the time occupied on the route, and the strain of the ascent and jar of the descent are serious drawbacks. Compensation, however, is to be found in the magnificent prospect from the summit of the crag : southward a ribbon of water winds between tremendous walls, which can now be seen to their full height. The Beirut Dagħ on the right is not less than 10,000 feet. The

southern face of the rock which the traveller has just climbed is thickly clothed with trees clinging to crevices and overhanging torrents which dash in a series of falls to the main stream, and far below a belt of trees fringes the river. The upper slopes of both walls are covered with pine forest, out of which rise the bare crags of the summits. Northwards the prospect is similar, but more open. We found the narrowest part of the gorge swept by a strong northerly wind, which roared through the pass and added a terror to the worst parts of the path.

The track reaches the water-level again at a small guard-house, having been met a quarter of a mile earlier by a path brought from the right bank over a modern bridge of similar construction to that at Paj: this path, we were informed, comes direct from Yarpuz. The Albistan track presently passes a small Turkman and Armenian village called Hajin Oglu, situated at the point where the gorge opens out into a fertile valley, wooded on the west to the river's edge, but spreading in a belt of cornfields and grassland on the east. The worst difficulties, but not the fatigue of the route, are now over: the river gorge contracts again, and the path leaves the stream-level and takes to the hills, no longer precipitous but still steep. A weary climb brings the traveller to a plateau 2000 feet above the river, bare but fertile, dotted with threshing floors, or cultivated by Marashiote Musulmans, who establish a *yaila* every year upon it. No permanent village exists nearer than Ambararasi, a very small hamlet six hours south of Albistan. Throughout the eastern Taurus villages are rarely met with: the difficulty of communication with the plains on either side, and the predatory habits of the mountaineers,* have no doubt contributed to deter both Musulmans and Christians from settling in the well-watered, well-wooded valleys: Circassians are now beginning to ascend higher and higher from the northern plains, but until their arrival, a few Turkmans only intruded on the western mountains ranged by the Zeitunlis, or the eastern, newly colonised by the Kurds.

From the Marashiote *yaila* (Chilal Oglu Kurtul) to Albistan the path is tedious in the extreme, constantly varying in level as much as a thousand feet in crossing the foot-hills which border the Jihan and fall gradually to the plain, and descending into or climbing out of the valleys of tributary streams. Their earthy slopes for the most part are bare of trees, but support several villages, Armenian and Turk (of which Ambararasi, Okukoi, Jellinga, and Kukuje are on or near the path), and

* This has been their character for many centuries, as witness the "Isaurian" freebooters who harried Gyksun and Yarpuz while John Chrysostom was in banishment in this district (404 A.D., v. *infra*, p. 717). Later on the Turkmans broke into the higher valleys (see Vaghran of Edessa, *Chron. rimée*, p. 527, lines 1252 ff., ed. Dulaurier in 'Rec. des Hist. des Croisades').

yield all kinds of crops abundantly. Four hours from Albistan is a famous medicinal spring (Ichme Su), reported by the local Armenian doctors to have powerful diuretic properties: the water is applied both externally and internally: we tasted it and found it a strong saline, impregnated with iron. About a dozen tents were pitched round the well. The following table will show roughly the variations of level on both roads, and the approximate distances:—

Miles.			Feet.	Deg. F.
—		MARASH (top of the town) ..	2628	27.23
4	..	Pass over Akkar Dagħ ..	5562	24.60
9	..	Cham Bunar	3462	26.45
14	..	Betli Chai .. .. .	..	..
21	..	Paj devrent	2330	27.47
29	..	Ilija Hamam	3858	26.10
34	..	Zeitun bridge	3833	26.10
		Summit of zigzags	5210	24.90
46	..	Ala Bunar yaila	6758	23.50
48½	..	First summit of Pass ..	7451	23.05
52½	..	Second do. do.	7426	23.07
54	..	Yuruk yaila	6517	23.75
58	..	Erejik .. .. .	..	..
66	..	Kawak Agach	4295	25.65
69	..	Khurman Su bridge ..	..	..
74	..	ALBISTAN	4100 (?)	..
25½	..	Spring .. .. .	..	..
27½	..	Foot of "Kussuk" Crag ..	..	..
28½	..	Summit do. do. ..	3401	26.50
31	..	Devrent .. .. .	..	..
32½	..	Hajin Oglu	3292	26.60
38	..	Summit of steep ascent ..	5071	25.00
45½	..	Chilal Oglu Kurtul yaila ..	6061	24.15
52½	..	Ambararasi .. .. .	..	..
55	..	Summit	5682	24.30
58	..	Hala Su	4350	25.65
59	..	Ichme Su (medicinal) ..	..	..
66½	..	Summit	5669	24.30
71	..	ALBISTAN	4100 (?)	..

These are the roads in modern use between eastern Asia Minor and northern Syria. Which of the two last described corresponds to the famous pass from Arabissos (Yarpuz) to Marash (Germanicia), so often traversed by Byzantine and Musulman armies? * Probably neither the one nor the other exactly. The ancient road from Yarpuz to Marash would have had no occasion to touch Albistan (whose importance is of recent growth), but would have followed a track still in use, which turns off south from the Albistan road just before reaching the great springs west of

* See 'Hist. Geog. of Asia Minor,' pp. 276 ff. and 311.

Izgin, and, rounding a corner of the hill, joins the Albistan Zeitun track, five miles from the former town and just south of the Khurman Su bridge. It did not, however, I maintain, continue *viâ* Zeitun, for on the one hand there are no traces of an ancient road on that route, and on the other there are remains in the Jihan gorge which show beyond question that a road passed that way in Byzantine times. I refer to the ruined bridge mentioned above, and to cuttings in the rock and traces of pavement on the left bank below the bridge. I believe, therefore, that the ancient track, instead of taking the Zeitun route or climbing the foot-hills on the left bank, hugged the right bank of the Jihan *all the way* to the now-ruined bridge. When (coming from Marash) we turned up to the hills on the right at the *yaila* of Hajin Oglu, we saw a track continuing to follow the opposite bank at the bottom of the valley: we were assured it was little used (as is no doubt the case, since it would not lead to the modern centre, Albistan, but to what are now unimportant villages in the flat plain of the upper Jihan, and to Yarpuz), out of repair, overgrown, and very narrow. This, I feel sure, was the line of the old road. After crossing to the left bank by the bridge, near the *Kussuk*, the ancient road coincides with the modern, as far as the point 3 miles below Paj, where the modern track to Marash leaves the river and strikes over Akkar Dag; on that track, however, there are no further traces of an ancient roadway, and, therefore, it is probable that the Byzantine highway continued to hug the river till it had rounded the western end of Akkar Dag, and that it came into Germanicia along the level. The "famous fortress," Adata, therefore, which guarded the mouth of the pass, must be looked for where the Jihan emerges from the Taurus into the plain of Marash, some miles west of the city.

The ancient route was, therefore, much easier and shorter in time, if a little longer in distance, than the modern. It eschewed those great variations of level which render this route so toilsome at the present day, and circumvented the notorious *Kussuk*; but it has fallen into disuse owing to the shifting of the trade-centre on the north from Yarpuz to Albistan, and, probably, to some catastrophe which ruined the bridge below the *Kussuk*; sooner than repair the easier route the Turks would scramble over the rocks till the day of doom!

This remarkable defile may be better known to Europeans some day than now, for it will afford the best possible passage for a railway between Asia Minor and Syria. The Jihan has hewn a stupendous cutting from the flats north to the flats south of the Taurus; the fall throughout is regular if rapid, and the construction of a railway would offer no serious obstacle to modern engineers. The gorge of the Jihan presents far fewer difficulties than those of the Zamanti and Saros, and gives more direct access to the Euphrates valley: a railway conducted by either of the other defiles would still have Amanus to cross between

Cilicia and Syria, whereas by the Jihan route the Euphrates could be reached at Birejik without any further obstacle of a serious nature having to be overcome.*

The ANTI-TAURUS, properly so-called, consists of two ranges which enclose the valley of the upper Saros, and lie at right angles to the general direction of the Taurus; but it is usual to include under the term the Ala Dagb, which runs due north for about fifty miles from the Cilician Gates, and has been described as one of the loftiest ranges in Asia Minor. There is really more affinity between this mountain and the westernmost of the Saros ranges, than between the latter and the Bimboa Dagb on the east of the river: for the last named belongs to a distinct system, and is divided from the main mass of Taurus by a deep and wide depression; whereas both the Ala Dagb and the range west of the Saros (it has no single name) are jointed to the Taurus at their southern extremities and hardly distinguishable at first from it. It would be very hard, for example, to say at what point the Saros ceases to flow through the Anti-Taurus and enters the Taurus.

The western Saros range springs up abruptly on the east of the rolling country of western Cappadocia, where east and south of Erjies the Ottoman Government has settled a medley of tribes, Kurds, Circassians, and Avshar, among the Greeks, Armenians, and Turks. This region is almost entirely treeless, very fertile, and, being of an average height of 4000 to 5000 feet above sea-level, is cool in summer. Northwards both the Saros ranges are merged in the higher plateau of Uzun Yaila, the Circassian stronghold, a vast rolling expanse well watered but treeless and seldom elevated less than 6000 feet above the sea. In this, the most northern point of the Mediterranean watershed, the Zamanti, the Saros, and the Khurman Su take their rise.

The western range is composed of several small mountain groups mostly rising to about 10,000 feet, with low intervening depressions. The traveller coming from the west has a choice of seven passes whereby to enter the Saros valley, but of these only three are in common use. The seven, taken in order from the north, are:—1. Yedi Oluk. 2. Kabak Tepe. 3. Kuru Chai. 4. Kuru Bel. 5. Gyuk Bel. 6. Dede Bel. 7. Kaz or Gez Bel.

I have crossed Nos. 1 and 7, but unfortunately have never seen the most important pass of all, No. 3, the Kuru Chai. The rest are unimportant and difficult tracks, No. 5, crossed by Sterrett in 1884, being perhaps the most frequently used.

The three principal passes (Nos. 1, 3, and 7) are all fairly easy;

* The easternmost pass from Behesne to Malatia I have never traversed. An account of it is contained in Ainsworth's 'Travels,' i. p. 262; and the ancient routes in that district are enumerated in 'Hist. Geog.,' p. 280. Hafiz Pasha dragged guns over the Behesne Pass in 1839.

a good carriage road could be made over any one of them with very little cutting or embanking: in fact, we took a light waggon over both the Yedi Oluk and the Kaz Bel in 1890, in the former case with much difficulty, owing to the trees which block the path on both sides of the summit; in the latter with comparative ease, though the road had not been prepared for wheel-traffic. I believe that no four-wheeled *araba* has crossed either pass before or since, but our venture shows how easily a good wheel-track could be made. The Kuru Chai is reported easier even than the Kaz Bel: it is the defile through which the Roman military road to the east was carried,* and it is traversed by a principal route between Kaisariye and the Albistan district at the present day.

The *Yedi Oluk* is really a pass leading southward from Azizie (on the edge of Uzun Yaila) into the Saros valley, but it can be entered from the west by crossing a depression north of Kara Kilise Dagħ,† and striking the Azizie road near the Avshar settlement of Guljuklar. Professor Ramsay doubts whether the Romans used this pass as a direct route to Caesarea, but decides that a road from Ariarathia (Azizie) came this way to join the great east road after its descent from the Kuru Chai. From Guljuklar the track runs due south up the valley of a tributary of the Zamanti, crossing and recrossing the bed: the incline is very slight and the track smooth. After 7 miles, near the headwaters of the stream, the path turns to the east and climbs to the watershed which is here comparatively low. For horses the ascent is quite easy, but as no attempt has been made to engineer the road, or lop the trees, the last gradients proved terribly difficult for our waggon; indeed we spent one and a half hours in surmounting the last 200 yards, and had to unload everything. A track similar, but more thickly beset with trees, leads diagonally down the farther side, and we found that it was not feasible to take the waggon down the path; we were forced, therefore, to adopt the hazardous expedient of locking its wheels and letting it down a dry watercourse with ropes, which, strange to say, we accomplished without disaster. Once down the first steep we found a fair, unencumbered track leading down by a tributary of the Saros, but our troubles were not over, for careless driving on the part of our *arabaji* at a steep side incline resulted in waggon and horses rolling down the mountain side for about 50 feet; luckily the latter were not hurt, and we patched up the waggon sufficiently to admit of its pro-

* Ramsay, 'Hist. Geog.,' p. 271, and Part II. of this paper. Most unfortunately we left our aneroid behind us in Kaisariye in 1890, and did not discover the fact till too late to send back. I can give no altitudes, therefore, in the northern part of the Anti-Taurus region.

† In 'Hist. Geog.,' p. 271, a statement of distances, &c., is given; Sterrett ('Epigraph. Journey,' p. 306) states that he crossed by this pass, but gives hardly any details.

ceeding to the Saros without further mishap. It must be conceded, however, that the Yedi Oluk is not yet exactly "practicable for wheels." The distance through the pass from the Zamanti to the Saros is 24 miles.

The *Kaz* (or *Gez*) *Bel* is the southernmost pass and carries an important road from Kaisariye to Hajin, and so to Sis and eastern Cilicia (see p. 658). This route, reached from Syria through the gap between Amanus and the Giaur Dagħ, was perhaps used by Assyrian armies in their expeditions to Tyana and south-western Cappadocia. It is possible also to reach Comana or Gyuksun (Cocusus) directly by this pass: for, once the western range is crossed, tracks are found leading across the broad, rolling valley in all directions.

More labour has been bestowed on this road than on that through the Yedi Oluk, and we experienced little difficulty on either slope. The pass begins at the small Turkish village of Seraijik, and ascends gradually in an easterly and then a northerly direction, keeping high up on the right bank of a stream which flows to the Zamanti. The valley is finely wooded but contains no villages. The level of the stream is reached about three miles up, near its source, and then begins the ascent of the watershed, a sharp ridge up which the road is engineered in very steep zigzags, intended for the passage of bullock-arabas, but not impracticable, though difficult, for lighter vehicles. The eastern slope is easier, and the upper plateau of the Urumlu Chai is reached in about three and a half hours from Seraijik. The main road turns south-eastward to Urumlu; that to Shahr north-eastward, and reaches the level of the Saros valley by an easy descent of two hours. Not having had an aneroid when we crossed the *Kaz Bel*, I can only guess at its elevation: Urumlu is about 4950 feet and Shahr (Comana) about 5000 feet above sea-level: the pass rises to fully 3000 feet above the latter, and the mountain north of it (Kozan Dagħ) is quite 2000 feet higher still, i.e. about 10,000 feet. The mountains immediately west of Shahr (Dede Dagħ and Elgeran Dagħ), to judge by the amount of snow upon them in August 1890, and also in July 1891, must be higher than Kozan Dagħ. They fall towards the Saros in tremendous precipices and form by far the most imposing part of the western range of Anti-Taurus.

The valley of the upper Saros which divides the western and eastern ranges is as striking a region as any in Asia Minor. Penned in between precipitous walls it lies apart from the rest of Cappadocia and possesses a character of its own; and it is easy to understand how it attained a mysterious sanctity in very ancient times, as the seat of the great goddess Ma, and preserved for so many centuries a worship alien to the Aryan population which had spread over the peninsula. At the present day it is the main stronghold of a singular nomadic race, the *Avshar*, who appear to have come from northern Persia and to have been forced

southward from Uzun Yaila by Circassian immigrants not many years ago. The allegiance which they profess to the God of Islam and to the Sultan is equally dubious: like the Kurds of the eastern Taurus they are idolaters and offerers of sacrifice, and defy alike the conscription and the tobacco laws. The Turks of the western plains shake their heads at the name of Avshar, whom they hold devil-worshippers and broken men, but, nevertheless, we found them hospitable, intelligent, and trustworthy. The women, as in Kurd villages, mix and talk freely with the men, and seem more intelligent and spirited than true Moslem women; they hardly veil themselves at all even in the presence of infidels. Both sexes wear brilliant colours, bright blues and reds, and the women adorn their heads with large yellow kerchiefs and the long pendent plaits of their hair with a profusion of gold coins. The plaits are thin and numerous, and are strung upon transverse sticks, which serve to keep them apart and away from the wearer's shoulders and face: in fact, they serve much the same purpose as combs in western *coiffure*. Both sexes are well built and handsome. Certain of these Avshar migrate in winter to the plains south of Taurus where Mr. Bent found them in 1890; the rest remain in the villages. Nomadic habits are still strong even with the most settled of these people: the inhabitants of Kemer, 5225 feet above sea level, situated near abundant springs and in the midst of rich grass, remove two or three miles away to *yaila* during the summer months, and we found the inhabitants of Koiyere and Yalak encamped not 200 yards from their own doors.

The valley varies in width from about four miles at Koiyere and Kemer to hardly half a mile at Shahr: between the first and last-named places, which are 12 miles apart, the fall of the Saros is about 1000 feet; its flow is sluggish and its banks and bottom soft at first, but it soon becomes rapid and the bed more rocky. Near Kemer the river turns westward, and as the Bimboa Dagħ maintains its southerly direction, a great bay of rolling plain opens south of the river, through which the road to Gyksun takes its way. The stream begins presently to cut its way deeper into the plateau, and flows for some distance beyond Shahr through a very narrow gorge: an interval of open country dotted with villages, Circassian, Turkman, and Armenian, succeeds, and then the river plunges into the Taurus and flows down a *cañon* whose sides are more than 1000 feet high, to the point where we crossed it below Hajin (see p. 659). From Shahr to that bridge is about 40 miles, and the fall of the Saros in that distance is 2570 feet. Shahr, the modern representative of Golden Comana, is the chief place, from an administrative point of view, in the valley: it is a miserable Armenian village of 100 houses, about twenty-five years old, built among the ruins of the old city, of which a theatre, fragments of a bath, part of a temple (now a church) and numerous walls, and doorways, are

above ground: more lies beneath, to judge by the hillocky appearance of the soil at the bottom and on the right of the valley.

The eastern wall, formed by Bimboa Dagħ, is impassable at any point for beasts of burden or wheel-traffic, and the traveller who wishes to reach the country east of Anti-Taurus must double either the northern or southern end of the range, whose snow-streaked cliffs rise to 9000 feet on the farther side of the Saros. The northern route ascends from Koiyere in one hour to a high rolling plateau which stretches northward and eastward of Bimboa Dagħ: at first the country is park-like, but the trees become gradually more sparse and cease almost entirely east of the Khurman Su, whose deep valley is the only notable feature on the road to Gyurun. The track is naturally smooth and easy, and requires little assistance from man: for the most part it ascends gentle acclivities out of one river basin and descends gentle declivities into another—from the Saros valley into that of the Khurman Su which flows to the Jihan, and from the latter to the head waters of a stream flowing to the Tokhma Su, and eventually to the Euphrates. Thus, near the village of Bash Uren no less important a watershed is crossed than that between the Mediterranean and the Persian Gulf.

The Avshar villages cease as soon as the eastern plateau is reached and the Akja Kurds begin. The latter, however, do not monopolise this region, for many villages either partly or wholly Armenian are met with, especially on the upper waters of the Tokhma Su, where they were founded in the eleventh century, when the Armenians migrated in great numbers from Greater Armenia towards the west and south. Circassians also have strayed southwards from Uzun Yaila and inhabit a few villages north of the Gyurun road: and there is a sprinkling of nondescripts who call themselves Turks and are probably Turkmans, inhabiting one or two villages east of Gyurun, *e.g.* Kizil Gyurun, and many in the valley of the Tokhma Su and the depression between Derende and Albistan.

The Kurds,* who are found in such numbers in the triangle of which Malatia is the apex, and the Tokhma Su, the Taurus, and Bimboa Dagħ the sides, are for the most part orthodox Sunni Musulmans (at least in name), whereas the Kurds who possess the mountains east of Sivas from Divrik to Shabhan Kara Hissar are Shiite, and included by the Turks with other heretics under the generic term of contempt, *Kizil-bash*. The last-named Kurds have retained their tribal organisation more completely than their congeners south of the Tokhma Su, and are regarded as more intractable and dangerous. Not that much good has ever been said of the Anti-Taurus Kurds: Sterrett calls those settled between Arga and the Tokhma Su “an inhospitable, murderous set of filthy villains”;

* See Ainsworth's account of these Kurds, 'Travels,' vol. i. p. 249.

and all the Turkish villagers in the Anti-Taurus give their Kurdish neighbours a bad name. For our own part, we experienced both in 1890 and 1891 more spontaneous hospitality at their hands than at those of any Turk, and were always delighted with the courtesy, intelligence, and fair dealing of our hosts. We have slept in their houses, camped near their villages or among their tents, and been dependent on them for food for many days: it is true that on one occasion they attacked one of our servants when separated from us, and I have heard a *bey* stigmatise his own tribesmen as "thieves to a man"; but, on the whole, our experience has been that they trust and delight to honour a European who treats them courteously, does not allow his guards (if he has any) to hector or rob them, and is not accompanied by their pet aversion, a Circassian.

They retain, indeed, some measure of tribal organisation, for almost every village is ruled by its own *agha* or *bey*, and they are essentially nomadic in their habits. Owing to the great elevation of their plateaux, on which snow lies for five months or more, their houses are generally either sunk many feet below the level of the ground, or, where the rock is soft, hollowed out in the hill-sides. It is not until a night is spent in one of their houses that the traveller discovers that what appears to be a little group of small log-huts on a slope is really a veritable ant-hill.

A few villages of true *Kizil-bash* Kurds undoubtedly exist in this district, shunned and despised by their neighbours: Kara Kuyu, about eight miles west of Gyurun, is an instance; and we noticed exceedingly unorthodox traits in the religious beliefs of Kurds in the valley of the Gyuk Su and on the southern slope of Taurus above Marash. The former set up wooden crosses over new graves, and tie three rag dolls to the cross-bar to receive the spirit of the deceased person. One of these dolls I secured, and have presented to the Pitt-Rivers Collection in Oxford. The latter certainly offer animals and fruits on stone altars, and their *hojas* are priests of a more primitive faith than Islam.

The northern route forks at Urtulu, one road going by the valley of the Khurman Su to Yarpuz and Albistan (this was traversed by Sterrett*), the other continuing due east to Gyurun. We followed the latter, and I give rough estimates of the mileage along it from the Saros:—

— Koiyere.	18 Khurman Su at Akdere <i>yaila</i> (Kurd).
1½ Koiyere <i>yaila</i> .	22 Bash Uren (Kurd and Armenian).
3 Edge of plateau.	29 Watershed of Tokhma Su valley.
5 Porrot (Kurd).	32 Kara Kuyu (Kizilbash Kurd).
8 Urtulu (Kurd).	34 Kizil Gyurun (Turk).
12½ Bozuk (Kurd).	39 Gyurun, 4950 feet.
15 Watershed of Khurman valley.	

* 'Epigraph. Journey,' pp. 290 302 306.

Gyurun *—Ptolemy's Gauraina—is a clean, well-built town, extending, with its suburbs, about five miles down the narrow valley of the Tokhma Su, which descends to the town from the north through a very narrow gorge. The course of the river is marked for miles by gardens, whose beauty is enhanced by the treeless aridity of the neighbouring hills; the water-supply never fails, even in the hottest summer. The inhabitants are about 10,000 in number, mainly Armenians, but including a considerable moiety of Musulmans, orthodox and heretical. Owing to the proximity of Uzun Yaila, Circassian influence is predominant.

Two notable "Hittite" inscriptions, seen by Sir C. Wilson in 1879, are carved on the rock near the point where the Tokhma Su emerges from its narrow gorge. The triangle east of Bimboa Dagh is a land of the "Hittites," and must have been the seat of a remarkable civilisation in early times. At the Palanga *chiftlik*, not far from Derende, we found, in 1891, an archaic statue with an incised "Hittite" legend running round it, and a small basaltic lion is built into a wall hard by: a few miles south two large lions, first seen by Von Vincke,† stand in a roadside cemetery, the site, perhaps, of a forgotten palace: and one of the most curious monuments of the "Hittite" class stood for long in a graveyard near Izgin, and has now been conveyed to Albistan, namely, a stone wedge about nine feet high, inscribed on all four sides. News has reached us lately of the discovery at Malatia of a monument of the same type with incised inscription; and, doubtless, the Kurdish mountains and the Euphrates valley will yield others when thoroughly explored.‡

The southern route leaves the river at Kemer, and passing through Yalak (where a road from Shahr comes in), rounds the southern end of the main chain of Bimboa Dagh, crossing a depression which separates the chain from the foot-hills of Taurus, and descends to Keklik Oglu, and thence through a Circassian district to the valley of the Gyuk Su. The river itself is reached at Gyuksun, the chief town of this district, in modern as in ancient times. It is a semi-troglodyte town of 300 dwellings, excavated for the most part in the soft rock of an isolated hill which rises out of the plain: twenty-eight of its families are Armenian Christians, the rest call themselves Turks, but vary little in type or

* Ainsworth, p. 239.

† Sterrett, by some confusion, ascribes the discovery of these lions to Von Moltke. The latter never mentions them in his 'Letters,' and Ritter quotes Von Vincke when he describes them.

‡ The "Hittite" monuments, found by us in the Anti-Taurus region in 1891, have been published in the 'Recueil des Travaux relatifs à la Philologie,' &c., edited by Prof. Maspéro, as a sequel to the paper on the Tyanean monuments, &c., published previously in that journal by Prof. Ramsay and myself.

habits from the Avshar and Kurds in their neighbourhood.* It is a miserable ant-hill of a town, out of the line of trade, and robbed of the fruits of its rich valley by the Circassians whom the Ottoman Government has allowed to settle about it.† The Circassian villages north of Gyuksun are the earliest settlements made by this race in the Anti-Taurus, and under the rule of three feudal beys, Mehemet, Mahmoud, and Tahar, prosper exceedingly and overawe the Turks and Christians, and even the local officials. Having stipulated for immunity from interference, these beys keep their tribesmen quiet and enjoy (comparatively speaking) a good reputation. East of Gyuksun, however, a large number of Circassian villages have been founded more recently, of which the principal is Funduk on the right bank of the Gyuk Su, for whose inhabitants no one, Musulman or Christian, has a good word; they beset the Albistan road, they rob the older Turkman and Kurd villages which occur at intervals on the left bank of the river, and murder with comparative impunity those who resist:—"Just a hard lot" was the verdict passed upon them by an American mission lady who has passed many years in travelling about this wild district. Their villages continue right down to the junction of the Gyuk Su with the Jihan, and they are in continual collision with the Zeitunli and Hajinli Armenians.

It would not be fair to say that the Ottoman Government makes no attempt to keep these unruly strangers in order—the fact that we found the prison at Albistan full of them proves the contrary—but no one can assert that with the small force at its disposal it can cope adequately with so large a body of tribesmen, strong, insubordinate, and resourceful. The Armenians themselves believe that these vigorous Musulmans have been imported to be a menace to themselves, and that much is overlooked on condition that they watch and harass the Zeitunlis. I do not know how far this is true, nor whether the Government is really cognisant of the outrages committed by Circassians. I only call attention to the fact that during the past twenty-five years very large bodies of Caucasian immigrants have been admitted into eastern Asia Minor, and distributed among the Armenians without any adequate provision being made for the restraining of their natural ferocity and predatory habits. Consequently every high road from the Gulf of Iskenderun to the Black Sea has become unsafe, and brigandage is carried even into the towns, as was shown recently by an outrage committed in the middle of Samsun, the chief port of the Black Sea littoral.

* They are doubtless of the Turkman race who began to invade this part of the Taurus about the twelfth century; they were then a purely nomadic race, living in *yais* (Vaghran of Edessa, *l.c. supra*, p. 666).

† Gyuksun shows little nowadays of such civilisation as that seen by Tudebodius ('Hist. de Jer. Itin.' th. iv.), who calls it "*quædam civitas nomine Coxon, in qua erat maxima abertas, atque stipata omnibus bonis quæ nobis erant necessaria.*"

From Gyksun two roads lead eastward, one by the south bank of the river direct to Albistan, the other to Yarpuz keeping some distance to the north of the Gyuk Su under the southern slope of a low range which, springing from the Bimboa Dagħ, runs parallel with the Taurus as far as the Khurman Su, and encloses on the south the rolling plateau described above in connection with the northern road to Gyurun. The road crosses three affluents of the Gyuk Su, and continuing north-east (while the river bends rather south of east), crosses a low chain, the Atlas Dagħ, into the valley of an affluent of the Khurman Su, at whose head-waters is situated Yarpuz, the ancient Arabissos, once important, but now robbed of all trade by Albistan,* 18 miles to the south-eastward. The inhabitants are true Turks with a few Armenians—one and all wretchedly poor and living in a collection of ill-built huts. I have seen no town or village in Asiatic Turkey wherein the conditions of life were less agreeable.

Some miles before reaching it, trees cease, and a bare, rolling country, all too familiar to travellers in central Cappadocia, stretches towards the horizon, relieved only by a distant prospect of the forests and snows of Beirut Dagħ on the south, and the rank vegetation of the marsh in which the Sogutli Irmak, the Khurman Su, the Jihan, and the Gyuk Su meet. The most remarkable feature on the road is an immense source a mile west of Izgin, where a number of streams of icy water slide out from under arid rocks, and form a large pond, beside which nomads pitch their tents in summer; the pond discharges a large volume of water into the Khurman Su just before its junction with the Jihan, and like all the springs in this region, is full of small trout.

Albistan is situated on the Jihan itself about two miles below its main source, at the southern end of an extensive plain which contracts gradually to the northward, and forms a clearly marked depression between the western plateau of Bimboa Dagħ, and the hills which divide the valleys of Jihan and Euphrates. The town is mainly Armenian, but strongly garrisoned as an outpost against Zeitun. Its 1500 houses are well built, and its *bazars* large and busy, but its development is hindered by the notorious unhealthiness of its situation, due doubtless to the neighbouring marsh.

The southern valleys of Anti-Taurus contain the most remarkable remains of a Roman military frontier road which exist in Asia Minor. The roadway is so well preserved, and the milestones so numerous, that

* Albistan is mentioned several times under the name of Ablastha by Armenian historians (e.g. Matthew of Edessa, p. 261, ed. Dulaurier), but not before the eleventh century. It was held by the Franks 1097-1105. In 1154 it was called the capital of Dehahan (Jihan), and was ceded by Kilij Arslan in 1161 to Yakub Arslan. (See Dulaurier, *intr.* p. xlv. *Arm. vol.* of 'Recueil des Hist. des Croisades'; and also Paul of Aleppo in 'Travels of Macarius,' p. 450.)

I have thought it worth while to subjoin to this paper a detailed account and map of the road in the valleys of the Saros and Gyuk Su.

The following table gives approximate distances and altitudes on the southern road from Shahr to Albistan.*

Miles.		SHAHR.		Feet.		Deg. F.
5	..	Kemer (Avshar)	5560	24.50	61	
8½	..	Yalak " .. ..	..	..	..
12½	..	Watershed of Gyuk Su	6569	23.65	..	
13	..	Keklik Oglu (Kurd)	6215	23.95	..	
17	..	Tahar Bei Koi (Circassian)	..	..	..
17½	..	Mahmud Bei Koi " .. ..	..	..	..
20	..	Mehemet Bei Koi " .. ..	..	..	..
24½	..	GYUKSUN (Turkman and Arm.)	..	..	..
39	..	Kanlı Kavak (Turkman) ..	..	..	..
43½	..	Karaman Oglu "	5028	24.90	48	
48	..	Circassian village (new) ..	5375	24.75	..	
57	..	YARPUZ (Turk and Arm.) ..	4865	25.20	80	
66	..	Izgin (Turk) .. ..	..	..	..
75	..	ALBISTAN	4100 (?)	..	..

PART II.

THE MILITARY ROAD FROM CAESAREA TO MELITENE ON THE EUPHRATES.

By D. G. HOGARTH.

PROFESSOR W. M. RAMSAY states, in his 'Historical Geography of Asia Minor,'† that "the backbone of the Roman road system is the great road from Ephesus to the East," which Strabo ‡ describes on the authority of Artemidorus. Eastward of Caesarea, Strabo tells us briefly that it passed by "Herphae" to the Euphrates, and finally reached Tomisa; and we have to supply from modern exploration the exact course followed in the mountainous region of the Anti-Taurus.

Fortunately, however, this can be done, not because Artemidorus' *κοινή ὁδός* has been better preserved to the east of Caesarea than to the west, but because the last section of it was transformed into a great Roman military road, when Cappadocia had become a frontier province, looking across the Euphrates to the east, where Roman influence extended but a short way beyond the points of the legionaries' pikes. Armenia—a hotbed of intrigue and disturbance, even when nominally under Rome—and Parthia, the stronghold of the avowed rivals of the masters of the West, could either of them throw an army into Cappadocia at short notice; and, as soon as the emperors found that no scientific or assured

* The shortest road does not touch Kemer, but goes direct from Shahr to Yalak.

† Page 49.

‡ Page 663.

frontier was to be found farther east, the Euphrates was fortified with a line of standing camps, connected by military roads.

Much of this great line of defence needs further exploration before it can be adequately described; but one, and a most important, part of it, of which remarkable traces still exist, has now been partially explored, namely, the road which connected Melitene, the central point of the Euphrates lines, with Caesarea-Mazaca, ran under the northern face of the Taurus, and commanded the heads of the passes through its eastern ranges. The section of this road which lies between Caesarea and the Anti-Taurus has not yet been examined carefully by anyone trained to follow the line of an old highway; but it is probable that not much trace of it will be found in a district continuously inhabited and frequently cultivated. No sooner, however, does the traveller emerge from the Kuru Chai Pass into the valley of the Saros, than the old road appears visible to his eyes as a low embankment running over smooth and rough ground, now lost in a marsh or broken by a torrent's bed but soon found again; ruined bridges mark the points where it crossed the river; groups of milestones lie embedded by the track, or stand in wayside graveyards; and hardly a village in the valleys of the Saros or Gyuk Su does not possess some records of the Roman road-makers. The causes of the preservation of the road are to be sought in the character of the ground over which it runs—not near enough to the hills to suffer from landslips, or to the rivers to be washed by floods; and in the fact, which is patent (though its cause is obscure), that these valleys were never thickly inhabited, and indeed had been almost deserted for some time before the Kurds, Avshars, and Circassians, who now inhabit them, appeared upon the scene. The two races last mentioned have invaded this district within the past thirty years, the tenure of the Kurds (offshoots of the "Akja" Kurds, settled between Arga and Albistan,) is probably not older than the century, and there do not appear to be half a dozen villages in the Anti-Taurus of a date earlier than the advent of these peoples. To the possible causes of this paucity of inhabitants I shall recur later in dealing with the history of the road.

For more than 65 Roman miles, from the southern end of the Kuru Chai to the crossing of the Khurman Su at Izgin (see map), the old roadway can be traced with few interruptions, and its milestones read. It is lost for a time in the deep plain of the Jihan, but the clue may be picked up again in the valley of the Sogutli Irmak, which is crossed by a bridge, a solitary pier of which stands at Giaur Uren. It is said to become evident again near Arga, on the eastern side of the Kurdish hills, but we cannot speak of it there from personal observation.

We propose to describe, in the present article, the section from the Saros to the Sogutli Irmak. The milestones discovered upon it are perhaps the most perfect series known; and certainly of no Roman road

in Asia Minor of equal length is so much visible evidence in existence.* From this one section, so singularly preserved to our days, we can know how the most important military road in Asia was engineered, constructed, and repaired.

We may claim to be the first travellers who have traced the actual line of the road by its visible remains, and fixed the mile stations along it. Professor J. R. S. Sterrett followed its general course in 1884, and read a number of its milestones,† some having been discovered already by Mr. Clayton in 1881 and Professor W. M. Ramsay in 1882.‡ In 1890 the latter was still uncertain whether the road crossed to the Saros valley by the Yedi Oluk Pass or no; but he settled that point in the negative by traversing the defile itself and the upper Saros valley, and finding no trace of the road; while in the following year we found a bridge over the Saros at Kemer, which made assurance doubly sure that the road descended from the Kuru Chai. The notes on which the following paper is based were taken mainly in 1891; a few milestones are published from our discoveries in 1890.

A.—Description of the Road.

We take up the road at the point where it reaches the right bank of the Saros, after a long and tortuous descent from the defiles of the western range of Anti-Taurus, whose foot-hills rise abruptly from the river bank itself. The Kuru Chai, by which it crosses the mountains, is not a difficult pass: even at the present day wheeled vehicles can traverse it in spite of the fact that there is no made road; and it is reckoned distinctly easier than either of the principal defiles north or south—the Yedi Oluk and the Gez Bel—through both of which we took a light waggon in 1890. The western Anti-Taurus is a barrier far more formidable in appearance than reality: seen either from the west or east, its long serrated ridge, crowned by crags whose summits are from 9000 to 10,000 feet above sea-level, promises difficulties of no ordinary kind; but on a nearer approach to any of the three great passes, long valleys are found to lead by moderate gradients to low depressions in the main ridge, which close inspection shows to consist rather of small separate mountain groups than of one continuous chain—a fact recognised in the multiplicity of names, Kara Kiliisse, Elgeran, Dede,

* The wonderful road from Olba to the Cilician coast is in more perfect preservation still, but it is not above 25 miles in length, so far as we could see in 1890. It is quite possible, however, that it could be traced for many miles north of Olba in the direction of Coropiasus (Kestel).

† See his 'Epigraphical Journey in Asia Minor' (Papers of Amer. School at Athens, vol. ii.), pp. 240 ff., and the Supplement to vol. iii. of the 'Corpus Inscr. Lat.,' part i. pp. 1252 ff.

‡ See 'Bulletin de Corr. Hellénique,' vii., pp. 144 ff.

Bei Dagh, and so forth—bestowed on the range by the modern inhabitants of the locality, in contrast to the unbroken chain east of the Saros, which bears but one title, Bimboa Dagh. The highest and steepest crags of the western range rise to the south of the Kuru Chai, behind the site of ancient Comana, forming a grand background to the view across the strait gorge in which lie the ruins of the holy city.

The exact point at which the Saros was crossed is still marked by the ruins of a Roman bridge at Kemer, a village of newly-settled Avshars. The river, though swift, is not deep here, and is fordable in summer: its width is not more than 25 feet, which the bridge used to cross in two spans. The arch abutting on the left bank remains almost intact, together with the approach from that side: it afforded a roadway 10 feet wide, and is built of large limestone blocks laid four abreast without mortar. Remains of a stone parapet appear in the approach, but all trace of it and of the roadway has vanished on the arch. A pier rests on a rock in mid-stream; on the right bank the abutment of the arch only remains. The level of the Saros at this point is 5560 feet above sea-level.

From the bridge the course of the road lies at first S.E., round the base of an isolated hill on the right. For some distance no sign of the roadway itself can be traced in the cultivated tract near the village; but two miles from the river the traveller begins to perceive a low embankment, running now on the right, now on the left of his track. Raised a few inches above the general level, it is further marked by the different colour of the herbage growing on its surface, and by the stones—remains of the *nucleus*—with which it is thickly strewn. Now and then larger “confining” blocks can be seen on either side at the edge of the embankment. The road runs along the bottom of the broad valley of an insignificant tributary of the Saros, a mile or two from the western base of the Bimboa Dagh, and for eight Roman miles lies in plain country, cultivated but recently in rare patches by the nomadic villagers of Yalak and Kara Kilisse. The line of the *agger* is consequently preserved with little interruption throughout this valley.

The graveyard of Kemer is full of Roman milestones, but none are *in situ*, although, as I shall try to prove later, a mile station, the 151st from Melitene, stood at or near the village, probably at one end of the bridge over the Saros. The first group which is unmistakably *in situ** occurs two miles on, where, at a point on the right of the ancient track, we found six inscribed stones, lying almost wholly buried, and spent several hours in unearthing and deciphering them. Five bear the numeral 149 in Greek, or Greek and Latin, the remaining one being

* The 152nd group, six in number, was still *in situ* as late as 1882; but three of its stones had been removed before 1890.

a mere fragment. The stones on this section are all of rough limestone, rounded, about 7 feet high, and from 1 foot 3 inches to 1 foot 6 inches in diameter. They are generally shaped to a rude point at the top. About three feet of the stone were embedded in the soil, and the lettering begins close to the top, except in the case of certain stones of Septimius Severus, whose inscription was often arranged in long lines almost encircling the stone. The numeral, always most deeply cut, is usually divided by a clear space from the rest of the text; next to it in size and depth of cutting ranks the initial IMPCAES. As 80 per cent., however, of the stones on this road bear two inscriptions at least, one superscribed over the other, it is often difficult to determine how the original text was cut. Red pigment was doubtless used to throw up the lettering.*

The road-embankment (*agger*) is uniformly about 10 feet wide, and still slopes slightly towards the crown in the more perfect sections east of Kanli Kavak. It thus conforms to Vitruvius' † rule that the *agger* should have a *fastigium . . . in pedes denos digitos binos*. The surface of the most perfect section which we saw was composed of small stones hammered down, and confined by larger lateral blocks; ‡ underneath was a layer of rough boulders, large and small, probably the *nucleus* of Vitruvius, which, in the case of an elaborately-constructed road, was laid on a foundation of solid masonry (*statumen*), itself resting on a bed of some loose substance, such as straw. We nowhere saw any trace of this *statumen*, nor again of any upper pavement of flat blocks—the *summa crusta*—familiar to those who have seen remains of Roman roads in Italy or elsewhere.

"Flag" pavement is so commonly considered an essential part and token of a Roman road that a few words must be said about the probability of its having been laid originally on Severus' road. The fact that we never saw a single inch of such a pavement, even on sections where the *agger* is in almost perfect preservation, is no way conclusive that it never existed; for, if milestones have been carried nearly twenty miles from their stations to serve for modern headstones, § *à fortiori* the small paving stones might have been stripped off entirely by peasants in want of building material. Villages, though not numerous in the valleys of the Saros and Gyuk Su, are still not insufficient, when combined with the towns of Gyuksun and Albistan, to account for the total disappearance of an upper pavement.

The fact, however, that the surface is perfectly "dressed" at the

* On a milestone of Hadrian, found by us at Ashkhar, on the road from Sebastea to Nicopolis, the red pigment is now as bright in the letters as the day it was first applied.

† vii. i.

‡ "*Margines*," cf. Livy, xli. 27.

§ *E.g.* from near Yalak to Gyuksun, see 141 i., *infra*.

present day between the confining *marginæ*, and shows no trace of having carried an upper layer, distinctly suggests that the road was "macadamised;" in fact, coated with *glarea*, not *silex* or *lapis*. That many Roman roads, more especially outside the towns, were so finished, appears from several passages in ancient authors, notably Livy, xli., 27, who says of the censors, Q. Fulvius Flaccus and A. Post. Albinus, that they were the first to put out to contract *vias sternendas silice in urbe, glarea extra urbem substruendas marginandasque*. Ulpian * draws a similar distinction in speaking of *viae terrenæ*, or mere cross tracks. It is unlawful, he says, in *viam terrenam glaream injicere: aut sternere viam lapide quæ terrena sit, vel contra lapide stratam terrenam facere*; and Tibullus † mentions both kinds of roadway in Etruria:—

*"Namque opibus congesta tuis hic glarea dura
Sternitur, hic apta jungitur arte silex."*

The roads paved with *silex* were naturally those least easily destroyed, and therefore are observed most often nowadays. The above passages, however, prove the existence of an inferior system of paving, and it must be allowed that the present condition of Severus' road suggests that (thanks to the deserted state in which the Anti-Taurus valleys have been for a long period) a rare instance of an *agger* paved with *glarea* has been preserved to us.

Two more milestone groups were passed on the right of the track before the village of Yalak is reached. A group stood in or near the village itself, represented by two stones in the graveyard. The villagers are Avshars, not long arrived in the district, and prone, after the manner of their race, to mark graves with upright poles or chunks of timber rather than stones. The rapid disappearance of the forests, however, will soon effect a change in this usage. Continuing its course southwards, the ancient road gradually approaches the eastern range, beginning to rise perceptibly, until after four miles it bends south-eastward, and zigzags up to the summit of a low pass, which intervenes between the southern end of Bimboa Dagħ and the rough hills, which trend away south-westward to the Saros. This is the watershed between the latter river and the basin of the Jihan. The summit crossed is 6570 feet above sea-level, and the Bimboa Dagħ rises fully 3000 feet more on the left. In the pass, and for several miles beyond it, the old track is conspicuous. It appears as a "dyke" of loose stones, from which all "dressing" has disappeared, and at a point two miles south of Keklik Oglu, where broken country has to be crossed, it becomes a very

* Digest, xliii. 11. '*De via publ. et itin. publ. reficiendo.*'

† Eleg. i. 7, 59. I owe these quotations to Bergier's somewhat prolix monograph published in 1665—'*Histoire des Grands Chemins de l'Empire Romaine*,' vol. i. pp. 246, etc.

considerable embankment from two to four or five feet high. Milestone groups *in situ*—the 137th and 136th—occur at, and a mile beyond, the Kurdish hamlet of Keklik Oglu, a troglodyte settlement of dwellings mainly hollowed out of soft rock, and furnished with wooden porches.

The fall to the valley of the Gyuk Su is more rapid than the ascent from the Saros, and consequently gullies and broken country are encountered more frequently. Owing, probably, to this fact, we lost all trace of the road for many miles from a point three miles south of Keklik Oglu, with the exception of a doubtful section near Mehemet Bei Koi. About its general direction, however, between the rough hills which enclose the stream flowing down from the pass, nature has left no possibility of doubt. From this part of the road the milestones have been carried in large numbers to Gyuksun, one of the oldest settlements in this district, and we found very few on the road. A highly crystallised, but not durable, limestone is found in this neighbourhood, and the stones made of it are of less diameter than those of coarser material. They have the double disadvantage of being less deeply inscribed owing to their original hardness, and of having rotted on the surface, to counterbalance the doubtful advantage of a somewhat more finished appearance.

In the deep marshy plain of Gyuksun no trace of the roadway is to be expected. The three cemeteries of the town contain nearly a score of milestones, most of which, to judge by their weathered appearance, have stood there for centuries. The town—anciently Cocusus—stands at or near the 126th station. It is a semi-troglodyte settlement, hollowed out of an isolated hill, and inhabited by a dark race, who dress like Avshars, but call themselves Turks. The majority are probably Turkmans.* Mixed with them now are many Circassians, and a few Armenians, the latter numbering twenty-eight as against about three hundred Moslem families. The place is a petty administrative centre, the seat of a *mudir*, and has a small and ill-supplied bazar. To judge by numerous fragments of cornice and mouldings in the cemeteries and houses, it was anciently a well-built town.† Several inscriptions of the Byzantine period have been published by Sterrett, and we copied a few more in 1891.

Cocusus is the most southerly point touched by the road. Thence it turns E.N.E. down the Gyuk Su, keeping high up on the slopes left of the stream, which flows on the right side of its valley close under the rugged foot-hills of the Taurus. The fine views of the great mountain wall, especially of the snowy cliffs of Beirut Dagh, and the broken wooded valley, make the section from Gyuksun to Yarpuz the most picturesque part of the road.

* See *infra*, p. 718. The Avshars themselves, it must be remarked, are a "Turkish" race.

† *E.g.* in 1097 (*cf.* the account quoted, *supra*, p. 676, and *infra*, p. 718).

For ten miles after leaving Gyuksun the traveller will look in vain for the ancient roadway, for the Gyuksunlis and the Circassians, lately settled in villages on the right of the road, have cultivated all this part of the valley and obliterated the track. Possibly in autumn its line might be traced here and there: we passed in summer, when the corn was standing thick and high. Three groups of milestones, however, will be found at 40 min., 1 hr. 5 min., and 1 hr. 40 min. respectively from Gyuksun.* It is impossible to be sure that any of these stones are *in situ*, for, unlike the groups between Kemer and Yalak, they stand in modern roadside graveyards. It is very probable, however, that the graveyards (near which no traces of villages exist) have grown up round the groups, the peasants being attracted by the mysterious sanctity of old "written stones" or simply by the convenience of having headstones ready to their hand. The great weight of the stones would dispose them to carry the dead to the stone rather than the stone to the dead. Once a graveyard has been formed, then other stones are brought from a distance. The transportation, however, of these stones over long distances is so common† that it is not safe to assert positively that the graveyards between Gyuksun and Kanli Kavak were formed round milestone groups, without more accurate measurements of distance than the pace of a horse or native reckoning by hours afford. At a rough estimate these cemeteries are not far from the 124th, 123rd, and 121st stations respectively; but it is impossible to be more precise.

The 118th station was almost certainly where the cemetery of Kanli Kavak is situated now. It formed the nucleus round which the peasants of the village, a mile to the north, began to bury and collect other stones from all sides, till over twenty-five milestones stand at this day, proclaiming the names and titles of Roman emperors over nameless Turkman dead.

The valley, which so far has been open and cultivated, now becomes narrow, and often broken by gullies running down to the Gyuk Su. The ancient road runs about half a mile to the north of the modern track for more than three miles, passing a cemetery full of stones from the 115th station. Close to the 114th (whose stones are *in situ* near a Circassian hamlet in the Dunyat Bel) it rejoins the modern horse-road, and is once more plainly visible. The 113th station is almost wholly buried by earth-slips, but one stone remains—the last we were to find until we reached Yarpuz.

Crossing a considerable stream, the traveller enters broken, pine-clad foot-hills, on whose slopes the old road can be seen more plainly than anywhere else. In the ease of its gradients, the bluntness of its curves,

* See Sterrett, *l.c.*

† *E.g.* at Gyuksun there is a stone from the 141st station which has been conveyed 15 miles; and apparently one has been carried from the 58th station to Albistan, about 25 miles.

and the condition of its surface (though unpaved), it is far superior to the modern track beside it, and if cleared of brushwood, would make an *araba* road without further expenditure of labour, except in a few places where torrents have cut through it. After a course of five or six miles over the foot-hills the road emerges on a bare plateau, over which, still plainly visible at intervals, it runs towards Yarpuz, and is lost at last in the sharp descent to the town itself.

A stone from the 100th station was found by Sterrett at Ziyaret Serai, a village some distance north of the road, and three miles west of Yarpuz; but neither he nor we could discover what had become of the rest of the stones from sixteen stations. Some are doubtless buried under earth-slips or silt; more, perhaps, were carried long ago to Yarpuz and built into walls. Only two are to be seen in the cemetery there, and we searched diligently but unsuccessfully for others in the houses and courtyards.

Yarpuz—anciently Arabissus—now a mean little town, inhabited by a few Armenians and many Turkish families of old standing, was formerly the most important place on the road between Caesarea and the Euphrates—an importance to which nothing but a few Byzantine epitaphs and mouldings remain to testify. Here a great road from Sebastea, and an alternative route *viâ* Ptanadaris from Ariarathia and Caesarea, joined the main artery, while the road into the great pass of the Jihan turned off southwards a few miles to the east, and was controlled from Arabissus.

From Arabissus the road bends S.E. for four miles, turning again E.N.E. at a point marked by a small graveyard, in which stand three milestones, probably part of or brought from the 94th station. For three miles beyond this point the old roadway, lost since Arabissus, can be seen once more on the left of the modern track. It runs down a stony treeless valley towards the plain of Albistan, and a mile west of Izgin skirts the head of a great spring or group of springs, which well out from under limestone hillocks and collect into a large pond before flowing to the Khurman Su.

All trace of the ancient roadway is lost finally before Izgin is reached. In the deep marsh which fringes the Jihan it has probably long ago sunk many feet down, nor should we have succeeded in picking it up on the eastern side of the plain but for the ruins of a bridge over the Sogutli Irmak at Giaur Uren. These consist only of the rubble core of a pier on the right bank, and traces of an abutment on the left. Perhaps the 76th station stood at the bridge. At Demirjilik, two miles down the stream, are two milestones, both illegible, and ten at least have been conveyed to Albistan, but one and all deliberately, though not quite successfully, defaced.

We spent a whole day trying to pick up the clue again beyond Giaur Uren, but failed. The bare hills are crossed nowadays only

by sheep-tracks, and there is nothing to induce the traveller to prefer one naked valley to another. None but a few nomad Kurds, ill-acquainted with the district, roam here in summer; and we could extract no information from them. The existence, however, of the bridge at Giaur Uren proves that Prof. W. M. Ramsay was right ('Hist. Geog. of A. M.,' p. 273) in concluding that the road took the direct line by the Sogutli Irmak valley to Arga, and not the more southerly modern route from Albistan to Malatia, on which Sterrett failed to find any ancient traces.* The track followed by Major Bennett† due east over the Kurdish hills is now completely disused, but no doubt represented until recent times the last section of the Roman road to the Euphrates.

There must have been a bridge over the Khurman Su east of Izgin, but we saw no trace of it.‡ Except at Gyksun and Yarpuz there are hardly any signs of an ancient site on the road; even at Kemer, which Professor Ramsay identifies with Sirica, there is hardly anything remaining. Osdara and Dandaxina, the other stations recorded between the Khurman Su and the Euphrates, either were further east than our journey extended (as Prof. Ramsay places them) or have disappeared. At a site called Seraijik, about five miles south of the road, at the entrance to the defile which conducts from Gyksun to Marash, is a graveyard full of Byzantine remains—perhaps those of Callipolis, passed by Basil in 880 on his march from Cocusus to Germanicia—and numerous Byzantine (or Armenian) mouldings, columns, etc., exist at Buyuk Yapalak, north of Albistan, and about six miles off the line of the road. The situation seems too remote from the direct route to be that of Osdara, and no other Byzantine town is recorded as having been situated in this district.

B.—The Milestones.

The mile stations on the map appended have been determined by the position of certain groups found *in situ*. These are the 152nd, 149th, 148th, and 147th, at all of which the stones lie by the roadside at the proper mile intervals, and not in cemeteries; also the 136th, to which the same description applies; the 115th, which, though in a cemetery, is proved to be practically *in situ* by the recurrence of the same numeral; the 114th and 113th, which still lie beside the road. These are fixed

* 'Epigraph. Journey,' p. 298. It is perhaps worth recording that an old Albistan *zabtich* asserted to me that a paved road existed a short distance west of Arga.

† 'Hist. Geog.,' p. 273.

‡ The modern track, however, making for Albistan, probably runs a good deal to the south of the ancient, and the old bridge should be looked for higher up the stream than Izgin.

points from which inferences can be drawn safely, and thus we reckon that such stones in the cemetery at Kemer as bear the numeral 151 have been moved a few yards only; those in the cemetery at Yalak are from the neighbouring 146th station; those at Keklik Oglu from the 137th, which must have been in the modern village; those at Kanli Kavak have been collected round the original group of the 118th station. The question of road-side cemeteries has been discussed above: if it is conceded that they have grown up round pre-existent groups, then representatives of the 131st, 124th, 123rd, 121st, and 94th stations are probably *in situ*.

The shape, size, material, and style of cutting have been described above. The numerals are reckoned from Melitene, the *caput viae*, near the left bank of the Euphrates, where Legio XII. Fulminata was stationed. Modern Malatia is not very near the Euphrates, but the older town, deserted in 1840, is much nearer to the river bank.*

The stones, up to the present moment found and deciphered, belong to the reigns of ten emperors, ranging from Septimius Severus to Diocletian and Maximian. A great number of stones bear no numeral—a fact about which mistake is not likely to occur, as that part of an inscription is most deeply cut, and therefore best preserved. A considerable number of stones are not inscribed at all, and a very large proportion have been used twice or thrice, to the sorrow of the modern epigraphist. On the whole, most respect has been shown by subsequent lapicides to the stones set up by Septimius Severus. Of later emperors, Gordian and Philip seem to have used most new stones, or to have had previous inscriptions most thoroughly erased. The last of the series, Diocletian and Maximian, never use a new stone, and their inscriptions are the most inextricably mixed up with earlier ones.

The formulæ are generally as follows:—

1. *Septimius Severus*.

Imp. Caes. L. Septimius Severus Pius Pertinax Aug. Arab. Adiab. Parth. Max. pont. max. trib. pot. vi. imp. xi. cos. ii. p. p. procos, et Imp. Caes. M. Aurel. Antoninus Aug. [et P. Septimius Geta] restituerunt per G. Julium Flacoum Aelianum leg. pr. pr.

2. *Elagabalus*.

Imp. Caes. divi Severi nep. divi M. Antonini fil. M. Aur. Antonino pio felici aug. milia restituta per M. Ulp. Ofellium Theodorum leg. aug. pr. pr.

* See Sterrett, 'Epigraph. Journey,' p. 301; and for a good description of the town at the epoch of the migration, Ainsworth, vol. i., p. 255.

3. *Severus Alexander* (twice only).

Imp. Caesar M. Aurelius Severus Alexander pius felix aug.
trib. pot. cos. p. p. vias et pontes vetustate conlapsas restituit.

4. *Maximin.*

Imp. Caes. Gaio Julio Vero Maximino pio felici invicto aug.
p. m. trib. potest. p. p. per Licinnium Serenianum leg. aug. pr. pr.

5. *Gordian III.* (Names of *Balbinus* and *Pupienus* erased.)

Imp. Caesari Marco Antonio Gordiano pio felici augusto
restituerunt (*sic*) per Cuspidium Flaminium Severum legatum
propraetorem.*

6. *Philip.*

Imp. Caesar Marcus Jul. Philippus pius felix invictus aug. et
Marcus Julius Philippus nobilissimus Caesar vias et pontes vetustate
conlapsas restituerunt per Antonium Memmianum Hieronem leg. augg.
pr. pr.

7. *Decius* (once only).

Imp. Caes. Trajano Decio aug. et Q. Herennio Etrusco Maesio
Decio et G. Valenti Ostiliano Mesio Quinto nobill. Caess.

8. *Gallus and Volusianus.*

Imp. Caesar G. Vivius Trebonius Gallus et Imp. Caesar G.
Vivius Velduminianus Volusianus pii felic. invicti augg. vias et
pontes vetustate conlapsas restituerunt per A. Virgilium Maximum
v. c. leg. augg. pr. pr.

9. *Aurelian* (once only).†

Imp. Caes. L. Domitio Aureliano pio felici invicto aug. trib. pot.
cos. p. p. vias et pontes vettustate conlapsas restituit (*sic*).‡

10. *Diocletian and Maximian.*

Impp. CC. Gaio Val. Diocletiano et M. Aur. Val. Maximiano
pp. ff. invi. augg. et Flavio Val. Constantio et Gaio Val. Maxi-
miano nobb. Caess.

The following catalogue of milestones includes all known at present

* See, however, 152, iii., *infra*, for a variation due to more thorough change of the formula of Balbinus and Pupienus.

† See note, p. 699, *infra*.

‡ In this formula (if correctly copied), as in that of Gordian (owing to the erasure of the names of Balbinus and Pupienus), there is a confusion between "Imperator . . . restituit" and "Imperator . . . milia restituta," used by Elagabalus, Maximin, Decius (?), and Diocletian. Probably Aurelian's inscription was fitted into an older one, and thus an ungrammatical formula has resulted.

151.

- (i.) R. 1890.
H. 1891. } In the cemetery at Kemer.

IMPCAES
LSEPTIMIUS
SEVERVSPIVS
PERTINAXAVG
ARABADIABPA
RTHMAXPONT
MAXTRIBPOTVI
IMPXICOSIIPP
PROCOSETIMP
CAESMAVREL
ANTONINVS AVGET
[Erasure.]
..RESTITVERVNT
PERCIVLIVMFLAC
CVMAELIANVM
LE.....PR.PR.....
CLI.PNA.

Imp[erator] Caes[ar]
L. Septimius
Severus Pius
Pertinax Aug[ustus]
Arab[icus] Adiab[enicus] Pa-
rth[icus] Max[imus] pont[ifex]
max[imus] trib[uniciae] pot[estatis] vñ
imp[erator] xi cos. ii p[ater] p[atriae]
procos: et Imp[erator]
Caes[ar] M. Aurel[ius]
Antoninus Aug[ustus] et
.....
.. restituerunt
per G. Julium Flac-
cum Aelianum
le[gatum] pr[o] pr[aetore]
CLI.PNA.

- (ii.) R. 1890. In the cemetery at Kemer, upside down, fragmentary.

CLI

PNA

- (iii.) Newly excavated on the hillside, min. from Kemer, right of the path to Shahr. Very rudely and irregularly inscribed.

IMP.....
....VS.....
...USPIUS.....
INVICTVSAVG
.....IUS
.....SSI...
.....A.E.PONT.S
V.....ATE...
LAPSASRESTITU
.....
....ONE.LE....
.....TO...

Imp. [Caesar
Marc]us [Jul. Phil-
ipp]us pius [felix
invictus aug.
et Marcus Jul]ius
Philippus nobili]ssi[mus
Caesar vi]a[s] e[t] pont[e]s
v[etust]ate [con-
lapsas restitu]erunt
[per Antonium Memm]ium
Hier]one[m] le[g. aug.
proprae]to[rem].

150.

R. } 1890. In the cemetery at Kemer.
H. }

IMPCAES
SEPTIMIUS
SEVERVSPIVS
PERTINAXAVG
ARABADIABPARTH
....PONTMAX
TRIBPOTVIIMPXI
....IPPPROCOS
ETIMPCAESMAVR
ANTONINVS AVG
[Erasure.]
[Erasure.]
RESTIT
VERVNT
PERCIVLIVM
FLACCVMAELI
.NVMLEPR..
CL PN

Imp. Caes.
L.] Septimius
Severus Pius
Pertinax Aug.
Arab. Adiab. Parth.
Max.] pont. max.
trib. pot. vi. imp. xi.
cos. i]i p. p. procos.
et Imp. Caes. M. Aur.
Antoninus Aug.
.....
.....
restit-
uerunt
per G. Julium
Flaccum Aeli-
a]num le. pr. [pr.
CL PN.

149.

(i.) By the roadside, 27 min. from Kemer, towards Yalak.

IMPCAL
LSEPTIMIV
SEVERVSPIVS
PERTINAXAVG
ARABADIABPARTH
MAXPONTMAX
TRIBPOTVI.IMPVI
COSIIPP.PROCOS
ETIMP.CAES
MAVRELANTON
..VSAVG.....
.....RESTIT
VERVNTPERIVLFLAC
CVMAELIANVM
LE.PR.PR
CXLIXPM⊙

Imp. Ca[esar
L. Septimiu[s
Severus Pius
Pertinax Aug.
Arab. Adiab. Parth.
Max. pont. max.
trib. pot. vi. imp. [x]i
cos. ii. p. p. procos.
et Imp. Caes.
M. Aurel. Anton-
[in]us Aug.
..... restit-
uerunt per [G.] Jul. Flac-
cum Aelianum
le. pr. pr.
CXLIXPM⊙

149—*continued.*

(ii.)

IMPER
CAESARMARC
OANTONIOCO
RAIANOPIOFE
ICIAVGVSTORESTI
TVERVNTPER
CVSPIΔIVMFLA
MINIVMSEV
ERVMLEGATV
MPROPRAET
OREM
CXLIX
PMΘ

Imper.
Caesar[i] Marc-
o Antonio Go-
rdiano pio fe[l-
ici Augusto resti-
tuerunt per
Cuspidium Fla-
minium Sev-
erum legatu-
m propraet-
orem
CXLIX
PMΘ.

(iii.)

[Imp. Caesar M. Julius Philippus
pius felix invictus aug. et M. Julius
Philippus nobilissimus]

ES VIA
NTESVI
AT.CONLA.
....ESTITVE
PERANT
VMMEMM
IVMHIERONEM
LEGAVG
PR PR
PMΘ

Ca]es[ar] via[s et
po]ntes v[et-
ust]at[e] conla[p-
sas r]estitue-
runt] per Ant-
oni]um Memm-
ium Hieronem
leg. Aug.
pr. pr.
PMΘ.

(iv.)

IVG
IB
IMPCAES
RESTITVERVNT
CAIOVAL
ΔIOCLETIAO
IAN

This fragment bears part of two inscriptions; the upper one has been imperfectly erased, and *restituerunt* has remained. The lower one is

Imp. Caes.
Gaio Val.
Diocletia[n]o
.....

149—*continued.*

(v.) IMPCA S
 USSEPT M
 AIAMOA PIOA
 VER
 ENNIOA
 CCOMAESI
 CAESICETIMP
 ENTIOSTIOS
 NOMESIO
 INTONO
 BILLCAESS
 PM©

Imp. Ca[e]s.
 Tr]aia(n)o (D)[e](c)io a[ug.
 et Q. Her]ennio [Et-
 ru](s)co Maesi-
 (o D)e(c)i(o) et (G.)
 Val]enti Osti(li)-
 a]no Mesio
 Qu]into no-
 bill. Caess.
 PM©.

The inscription of Decius has been superscribed upon one of Septimius Severus.*

(vi.) Bears numeral CXLIX PM©. The stone is fragmentary, and the inscription is in hopeless confusion, out of which nothing intelligible can be made.

148.

Two stones *in situ*, which we had not time to dig out.

147.

By the roadside, 52 min. from Kemer towards Yalak, lying face downwards beside another milestone.

We had no time to dig it out, and could only read the following letters on the under side. The inscription seems to be either of Gordian or Philip.

PI
 GVS
 RV
 N
 V
 IE
 ME

146.

Yalak.

(i.) 'C. I. L.,' 6947.

Philip. No numeral.

(ii.) 'C. I. L.,' 6948.

(?)

* The credit of detecting the formula of Decius in this imperfectly-deciphered inscription belongs, not to the copyists, but to my friend Mr. C. H. Turner, Fellow of Magdalen.

145.

None.

144.

'C. I. L.,' 6949 in Yalak (Greek).

(?) P M A.

143.

None.

142.

None.

141.

(i.) In the southern cemetery at Gyuksun. Much defaced.

I M P
 C A E S A R
 V I A I I
 V S
 N O
 R N I
 P
 L
 A M P C
 M O V ..
 P I A O G T
 A I E ...
 O A
 C X L I P M A

The indications suit the formula of
 Gallus and Volusianus best, but
 are not clear. Perhaps that of
 Sept. Severus* has been also used.

On the opposite side the following letters of another inscription can be read:—

C C
 M T H E O

This is part of the formula of Elagabalus.

(ii.) 'C. I. L.,' 6934, 6935, *ibid.*

Gordian
 Diocletian (?) } P M A.

(iii.) 'C. I. L.,' 6933, *ibid.*

Maximin
 Diocletian (?) } P M A.

140.

None.

* Mr. F. Haverfield suggests that P I A O G T in line 11 = F L A C C U [M (which is a possible epigraphic confusion): A I E of line 12 = M L E [G, and line 13 contains the remains of pr]o [pr]a[etorem. I have to thank Mr. Haverfield for other helpful suggestions and corrections.

139.

None.

138.

'C. I. L.,' 6945, at Keklik Oglu.
 Maximin P A H.

137.

(?) 'C. I. L.,' 6946, at Keklik Oglu.
 Philip.

136.

(i.) One mile from Keklik Oglu, on the road towards Gyuksun.
 Upper part erased.

...IMINOPIO
 ...ICIAVGTRIB

 ..PL...N....
AVG
 PR...PR
 PAS

[Imp. Caes.]
 [Gaio Julio Vero]
 Maxjimino pio [fel.
 inv]ic(t). aug. trib.
 [pot. pont. max.]
 p. p. pe[r L[ici]n[ium
 [Serenianum leg.] aug.
 pr. pr.
 PAS

(ii.)

IM.
 CAE...
 VIVI.....
 N...GAL...
 E..MP.....
 .VIVIVS
 .ELDVMI...
 .VSVOLV...
 .VSPFIIFELICI...
AVG.....
 .TPONTES..
 VSTATECON.
 .PSASRESTITV.
 V..VTPERAN.....
 MAXIMVM..
 ...AVG.PR..

Im[p.
 Cae[sar
 G.] Vivi[us Trebo-
 n[ius] Gal[us
 e[t I]mp [Caesar
 G.] Vivius
 V]eldumi[nia-
 n]us Volu[sia-
 n]us pii felic. i[nv-
 icti] aug[g. vias
 e]t pontes [ve-
 t]ustate con[l-
 a]psas restitu[e-
 r]u[n]t per A. (V)[irgilium
 Maximum [v. c.
 leg.] aug[g.]. pr. [pr.

135.

None.

134.

In the eastern cemetery at Gyuksun, much defaced.

P R
 A N O R V F O
 T S S

 S E T
 I I G E N

 ... O R E
 C X P A A

133.

'C. I. L.,' 6930, at Gyuksun.
 Elagabalus. P A F.

132.

In the eastern cemetery at Gyuksun. Only the numeral is legible.

M C X X X I I P A [B

131.

In the graveyard near Mehemet Bei Koi, on the high road to Gyuksun; right of the road. 'C. I. L.,' 6944.

IMPCI..L.....	{ Philip. Diocletian.
DIOCLETIANO	
ESMA	
..AN...	
....IVL...	
AVGG...TITV..	
....M....	
V.....IE...	

130.

(?) (i.) 'C. I. L.,' 6942, 6943, *ibid.*

{ Philip.
 { Diocletian.

130—continued.

(ii.) 'C. I. L.,' 6940. At Gyuksun.
P A

129.

None.

128.

None.

127.*

None.

126.

None.

125.

(?) (i.) 'C. I. L.,' 6931.
Elagabalus.

(ii.) Gyuksun, in the southern cemetery = Sterrett, No. 277.
'C. I. L.,' 6939.

IMP
LUCE
AVRELIANO
N
NV
TRIB PPO
COS P P
TESVETTVSTA
NLAPSASRESTITV
IT PKE

Imp. [Caes.
Luc. [Domitio
Aureliano
.....
i]nv[icto aug.
trib. P po[t.
cos. P p. p. [vias et
pon]tes vettusta[te
co]nlapsas restitv-
it PKE

This is the only milestone of Aurelian identified on this road.†

(iii.) 'C. I. L.,' 6924, at Kanli Kavak.
PKE

* 127 is given in 'Hist. Geog. of A. M.,' p. 274, as the exact distance from Melitene to Cocusus.

† Prof. Mommsen (in Addit. Suppl., vol. iii., C. I. L.) is of opinion that this stone has been miscopied, and should be ascribed to Alexander Severus and read as No. 152, ii.

124.

(?) (i.) In a small cemetery 40 min. east of Gyuksun. 'C. I. L.,' 6928.

IMPCAESAR
 LSEPTIMIVS SEVERVS
 PIVS PERTINAX AVG ARABADIAB
 PARTHMAXPONTMAXTRIBPOTVI
 IMPXICOSII PP PROCOS ET IMP CAES
 MAVREL ANTONINVS AVG
 ET SEPTIMIUS AVGG RESTITVERVNT
 PER CIVLIVM FLACCVMAELIANVM LEGPRPR

Imp. Caesar
 L. Septimius Severus
 Pius Pertinax Aug. Arab. Adiab.
 Parth. Max. pont. max. trib. pot. vi.
 imp. xi. cos. ii. p. p. procos. et Imp. Caes.
 M. Aurel. Antoninus Aug.
 et [P.] Septimius [Geta] restituerunt
 per G. Julium Flaccum Aelianum. leg. pr. pr.

AVGG is written large over the erasure of Geta's name.

(?) (ii.)

I...
 CAES
 DIVISEVE..
 NEPDIVIM..
 TONINI
 FIL
 MAVRAN..
 NINOPIOFELIC.
 AVG
 MILIARESTITV
 TAPERMVLPOFELL
 IVMTHEODORVM
 LEG AVG
 PR PR

I[mp.
 Caes.
 divi Seve[ri
 nep. divi M. [An-
 tonini
 fil.
 M. Aur. An[to-
 nino pio felio[i
 aug.
 milia restitu-
 ta per M. Ulp. Ofell-
 ium Theodorum
 leg. aug.
 pr. pr.

(?) (iii.) 'C. I. L.,' 6936.

Gordian.

(iv.) 'C. I. L.,' 6938.

Diocletian.

123.

(i.) In a roadside cemetery about 70 min. east of Gyuksun.

VSIV
SFU
VSIET
P
I...S
O F
CONSSA
ATPETLA
MEMMIVM
LEG AV
PRPR

[Imp. Caes.]
Marc]us Ju[l. Phil-
ippus piu]s f[elix in-
victus a]u[g.] et [Marcus
Jul. Phil]i]p[us nobili-
ss]i[mu]s [Caesar vias
et p]o[ntes vetustate
con]lap[s]as rest-
ituerun]t pe[r Anton-
ium] Memm]ium [Hieronem
leg. Au[g.]
pr. pr.

(ii.)

A.....
PH.....IP.....
CET...A...
TRIBP....
....PC...O

122.

(?) (i.) 'C. I. L.,' 6927. In a cemetery 1 hour 40 min. E. of Gyuksun.
Sept. Severus.(ii.) 'C. I. L.,' 6932.
Maximin. P K B.

121.

(?) (i.) 'C. I. L.,' 6929.
Sept. Severus.(?) (ii.) 'C. I. L.,' 6941.
Philip.(?) (iii.) 'C. I. L.,' 6937.
Diocletian.

120.

'C. I. L.,' 6925. At Kanli Kavak.
P K

119.

None.

118.

(i) In the cemetery at Kanli Kavak.

..... N ...
 .. D ... A ... NOP ...
 GVSTORI
 ERCVS
 MINIUM
 ATVMPPROP
 EM
 PIH

Imp. Caes.
 [Marco A]n[ton-
 io Gordi]a[no pi]o felici
 au]gusto r[esti-
 tuerunt p]er Cus[pidium
 Fla]minium [Severum
 leg]atum propr[ae-
 tor]em
 PIH

(ii.)

PIH

PIH

The following stones in the cemetery at Kanli Kavak belong to stations unknown :—

(i.)

E. CVSPI....
 MIN..... IERON
 PR P

p]e[r] Cuspi[dium
 Fla]min[ium (Severum)
 legatum] pr[o]p[raetorem]

The name of [Ant. Memmium H]ieron[em], Philip's legate, also appears on the stone.

(ii.) The stone is very much worn, and may be identical with Sterrett, No. 314, where only the last line is given = 'C. I. L.,' 6926.

IMP
 CAESAR
 IIA VCP
 ERV
 GMAX
 COSPROCOS
 IV

Imp.
 Caesar *

max.
 cos. procos.

.....

AVG
 PRPR

[leg.] Aug.
 pr. pr.

(iii.)

VOL
 INVICTI

Vol[usianus pii felici
 invicti [Augg.

* Mr. Haverfield suggests *Maximin*, as the only sole ruler who inscribes *leg. aug.* on his stones; but calls attention to this unique occurrence of *cos. procos.* here among milestones on this road.

118—*continued.*

(iv.) Lower part only.

..... T	vias et pon]t[es vetus-
..... N . A P S ..	tate co[n]l]aps[as
.... T V ... N T	restitu[eru]nt [per A.
... C I I	Vir]gil[ium Maxi-
M V M C S	mum [virum] c[lari]s[simum
G A V G G	leg. augg.
P R P R	pr. pr.

(v.) A stone on which four inscriptions are hopelessly entangled.

- a. (?).
- b. Maximin (?).
- c. Philip.
- d. Diocletian.

(vi.) 'C. I. L.,' 6923.

Diocletian.

(vii.) 'C. I. L.,' 6926.

(viii.) 'C. I. L.,' 6918, 6919, 6920.

{ Elagabalus.
 { Gallus and Volusianus.
 { Diocletian.

(ix.) 'C. I. L.,' 6921, 6922.

{ Septimius Severus.
 { Diocletian.

(x.) 'C. I. L.,' 6917.

Philip.

(xi.) 'C. I. L.,' 6915, 6916.

{ Philip.
 { Diocletian.

(xii.) 'C. I. L.,' 6914.

Philip.

(xiii.) 'C. I. L.,' 6913.

Gordian.

(xiv.) 'C. I. L.,' 6912.

Elagabalus. P K I, i.e. P K Γ (?).

(xv.) 'C. I. L.,' 6911.

{ Sept. Severus
 { Diocletian.

117.

None.

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116.

None.

115.

(i.) In a small cemetery about half an hour east of Kanli Kavak, to the left of the modern road.

IMPCA..
 LSEPTMIVS I SEVERVS
 PIVS I PERTINAX I AVG I IAR I ADIAR
 PARTHMAXPONTMAXTRIRPOTVI
 IMPXICOSII I PP I PROCOS I ETIMPCAES I
 MAVRELANTONINVS I AVG I
 TITVERV..
 PERCIVLF...CVM AELIANVM I LEG I PR I PR I

Imp. Ca[esar]
 L. Sept[i]mius I Severus
 Pius I Pertinax I Aug. I [A]ra[b]. I Adia[b].
 Parth. Max. pont. max. tri[b]. pot. vi.
 imp. xi. cos. ii. I p.p I procos I et Imp. Caes I
 M. Aurel. Antoninus I Aug I ...
 res]tituer[unt]
 per G. Jul. F[lac]cum Aelianum I leg I pr I pr I
 (R is written for B throughout.)

(ii.)

PERC...IVMFLA.
 CVM....A...LIANVMCL S

per G. [Jul]ium Fla[c]
 cum A[el]ianum [leg.
 [aug. pr. pr.]

(iii.)

IMP
 CAESDI
 VISEVERI
 NEPDIVIMAN
 TONINIFILM
 AVRELANT...
 NOPIOFELICI
 AVGMILIA
 RESTITVTAPER.
 VLP OFELLIVM
 THEODORVMLEG
 AVG PR PR
 MP I E

Imp.
 Caes. di-
 vi Severi
 nep. divi M. An-
 tonini fil. M.
 Aurel. Ant[oni]-
 no pio felici
 aug. milia
 restituta per [M.
 Ulp. Ofellium
 Theodorum leg.
 aug. pr. pr.
 M P I E

115—*continued*.

(iv.)

C I C	
C . . . A P S A S R	c[onl]apsas r[estituerunt]
PERANTO	per Anto[nium Memmi-
. . . I E . O N . .	um H[ie[r]on[em]

(v.) Stump with only the numeral left.

P I E

P I E

(vi.)

E
M
V A \ G
C

114.

Lower fragment of a stone in the Duniyat Bel.

P R
M P I Δ

113.

By the roadside, 1 mile from the Duniyat Bel stone. Broken R.

LSEPTIMIVS
PIVSPERTIN
PARTHMAXPON
IMPXI' COS' II' PPPR
MAVREL'ANTO..
NVSAVGET
..... RES
PERCIVLIVM
CVMANVM' L

[Imp. Caes.]

L. Septimius [Severus]

Pius Pertin[ax Arab. Adiab.

Parth. Max. pon[t. max. trib. pot. vi.

imp. xi. cos. ii. p. p. pr[ocos. et Imp. Caes.

M. Aurel. Anto[ni-

nus Aug. et

..... res[tituerunt]

per G. Julium [Flac-

cum [Aeli]anum l[eg. aug. pr. pr.

3 D 2

112 to 101.

None.

100.

(i.) 'C. I. L.,' 6907 at Ziyaret Serai.
Sept. Severus. P.

(ii.) 'C. I. L.,' 6910, *ibid.*]
Sept. Severus. (?) C.

99 to 95.

None.

In Yarpuz are two stones of uncertain provenance.

(i.) 'C. I. L.,' 6908.
Philip (?).

(ii.) 'C. I. L.,' 6909.

94.

(i.) 'C. I. L.,' 6906. In a cemetery about 4 miles E. of Yarpuz;
broken at the bottom.

IMP CAESAR
MAVRELIVSSEV
VSALE.....
PIVSFELICT..TR
IB POTEST COS
PP V IASETPONT
ESVETTVSTATE
VLAPSASREST
T

(ii.)

I.....
G....R(?)
AIOVL....VS
XIMI..P..
FELIC.AVG..

..LEG..

Imp. Caesar
M. Aurelius Sev-
er]us Ale[xander
pius fel. i(nv). [Aug.] tr-
ib. potest. cos.

p. p. vias et pont-
es vettustate
co]nlapsas rest-
itui]t.

I[mp.
C[aesa]r[i
G]aio [J]ul[io Vero Ma-
ximi[no] p[io
felic[i] aug. [p. m.
[trib. potest. p. p.]
[per Licinnium]
[Serenian-]
um] leg. [Aug.
[pr. pr.]

93 to 59.

None can be certainly ascribed. The following are of uncertain provenance:—

(i.) 'C. I. L.,' 6905. At Izgin.

IMPCAES
MANT
CORDIANO
PUSFE
UC CAES
MAXIMIA
TRIBPOTEST
ESRESTIT
PERCUSPIDIUM
F AM
UG

Of this only a fragment is published in 'C. I. L.' The formula of Gordian is fairly complete. Confused with it is that of another emperor, who records his tribunician power, and therefore is not Diocletian, but almost certainly Maximin.

(ii.) 'C. I. L.,' 6904, *ibid.*

Sept. Severus.

(iii.) Albistan, in the cemetery. Sterrett, No. 345. 'C. I. L.' 6908.

... CAES	Imp.] Caes.
..... VER. NEP	divi Se]ver[i] nep.
..... ARI	[divi M. Antonini fil.]
..... N. U M...	M. Aur. A]n[t]on[ino
.... E.... AVG	pio f]e[lici] aug.
..... RESTITV F.	milia] restitut[a
... M v LPOFELLI..	per] M. Ulp. Ofelli[um
THEODORUM	Theodorum
... AVGPRPR	leg.] aug. pr. pr.

(iv.) *Ibid.*, intentionally defaced. A few letters have been overlooked by the defacer on the extreme left, viz. :—

... ER..	Sev]er[us
.. AB	Ar]ab.
O	

(v.) *Ibid.*, intentionally defaced.

[Several lines gone.]
vetust ATECO nlapsas
RE stituiT per
Antoni] VM Memmium HIER onem
leg. AVG
An inscription of Philip.

93 to 59—*continued.*(vi.) *Ibid.*; half buried, upside down. Traces of red in the lettering

.. G U S
 A N C I S J 1 . .
 E F C I G

 N O B B C / E S

Apparently the remains of an
 inscription of Diocletian.

(vii.) On the other side of the same stone.

I U U
 C O C . . A N T I O
 I C A
 N O O

Co[nst]antio

An inscription of Diocletian.

(viii.) *Ibid.*

L I - S R
 C

 A V
 R I S V
 T

A

58.

Ibid.; surface deliberately damaged. The numeral, however, is clear.

..... I E A
 G A V G
 N H

From these milestones and other sources Liebenam's* list of governors of Cappadocia may be emended and supplemented to some extent.

(?) A.D. 177-181. *L. Alfidius* (?) *Herennianus* (?) † (Tertullian, 'Ad Scap.,' iii.).

(Lieb. No. 17.) 198. *G. Julius Flaccus Aelianus* can be dated precisely.

(Lieb. No. 20.) 218. (?) *M. Ulpius Ofellius Theodorus* [not "*Orellius*"]. Ought to be placed before Nos. 18 and 19 (?).

* 'Forschungen z. Verwalt. d. römischen Kaiserreichs,' p. 119. Cf. 'C. I. L.' iii. Sp. 1252.

† This is Prof. Ramsay's conjecture for the name in 'Ad Scap.' iii., usually read *Cl. Lucius Herminianus*, but variously given by the MSS. and commentators (ed. Migne, p. 702). Prof. Ramsay thinks that the name *L. Alfidius Herennianus* (who was Consul in 171 A.D.) suits the circumstances alluded to by Tertullian, and explains the MSS. variants.

(Lieb. No. 21.) 235-6. (?) *Licinnius Serenianus*.

Prof. Ramsay refers to Cyprian, 'Epp.,' 75, 10, where Serenianus, "acerbus et dirus persecutor," is said to have been Governor of Cappadocia in 235 A.D.

(Lieb. No. 22.) 238. *Cuspidius Flaminius Severus*.

244-5. (?) *Antonius Memmius Hiero*.

This is the M. Ant. Memmius *Senecio* placed in the 1st century by Liebenam (No. 6, p. 122). Whether the M. Antonius Memmius (*cf.* 'B. C. H.,' vii., p. 38), governor of Galatia while "prætorius," is the same person, as Liebenam states, or no, must remain uncertain, as we do not know his second cognomen. Prof. Ramsay, however, says that the lettering of the Galatian inscription suits a 3rd century date.

251-2. (?) *Aulus Virgilius Maximus*.

C.—History of the Road.

The history of the road is to be learned from its milestones. As a *made road*, it probably does not date farther back than the end of the 2nd century of our era, when it was constructed for military purposes, as part of the defences of the Euphrates frontier. A *trade route*, however, traversed Anti-Taurus at least as early as 100 B.C., when Artemidorus described it. Strabo (p. 663) quotes from him that the eastern section ran from Mazaca to the Euphrates *μεχρὶ Τομίσων χωρίου τῆς Σωφηνῆς διὰ Ἡρῶν πολίχνης χίλιοι τετρακόσιοι*. This meagre notice is not of much assistance in determining the exact line, for *Ἡρῶν* or *Ἡρῶα*, as we know from Strabo himself (pp. 537-539), was situated on the Zamanti Su, which is west of the point where the roads to the Yedi Oluk and Kuru Chai Passes diverge. There was a route over the Yedi Oluk, and thence round the northern end of Bimboa Dag, in Roman and Byzantine times, which, though slightly more difficult, is shorter in point of distance to Arabissus than the Kuru Chai-Gyuksun line. If, however (as we shall try to prove), Severus was the first constructor of the military *chaussée*, the use of "*restituerunt*" in the formula on his milestones implies a track previously in use, reconstructed by him as a Roman made-road; and if that be so, there can be little doubt that the track which preceded the military *chaussée* was the well-known *κουρή ὁδός* to the east. It was doubtless of similar character to that of modern main tracks in the Anti-Taurus—that is to say, it was engineered, and, to some extent, built up. Precipitous places were banked or cut, and steep grades rendered easier by zigzags; but no roadway was laid on stone foundations until Roman builders came into the district, whose advent can hardly have happened before the end of the first century of our era at the earliest: for there is no evidence, in the shape of colonies or other cities bearing the names of emperors, to show that any of the great colonising princes of the first two

centuries concerned themselves with Cataonia. The milestones make it practically certain that it was at the very end of the second century that the construction of the Roman road was actually begun.

Out of 89 stones collected from 60 miles of the road, there are none earlier than the reign of Septimius Severus; and it must be remembered that at least one apparently *complete* group—the 149th—has been found. The chances are, therefore, very strongly against any stone of an earlier emperor existing. The inscriptions of Septimius Severus are, in all cases that we have seen, cut on a fresh stone, not over any erased lettering; and, as has been remarked above (p. 654), have been respected most frequently by the lapicides of later reigns, who have defaced so freely the inscriptions of other emperors.

A further argument may be drawn from a comparison of the formula of Severus with those of his successors. His stones only are dated precisely to a certain year in the middle of his reign, whereas all the other formulæ imply either the first year of the several emperors, or a vague period in their reigns, not specially marked.*

The date of Severus' work seems to be late in the year 198 A.D. His milestones are inscribed with his VIth *tribunicia potestas* (December 10th, 197, to December 9th, 198), but later than the assumption of Caracalla and Geta (probably June 2nd, 198). As, however, the emperor was in his XIth *imperium* (198–199, according to Cagnat†), and had assumed the title Parthicus Maximus, not known otherwise before 199, we must bring down the date of the stones as late as possible in 198, to the end of November or the beginning of December. The assumption of the title Parthicus Maximus would be known first in the East, where Severus himself was at that period, and, therefore, might easily appear on Cappadocian milestones before it had been published generally through the empire.

If Severus be accepted as the emperor under whom the construction of the military road connecting Caesarea with Melitene was undertaken, we can credit him with a wise measure of defence, quite in keeping with his subsequent policy in Britain. How great a part he played in the organisation of the whole scheme of the Eastern frontier defence will be better known when the Euphrates valley has been carefully examined; on the slight evidence now available it is impossible to say definitely who first planned the lines. According to Dion Cassius (lv. 23), there were two legions stationed in Cappadocia as early as the time of Augustus—XII. *κεραυνοφόρος* and XV. "Apollonia," certainly associated later with Melitene and Satala: both were in Cappadocia in the time of Corbulo (Tac. 'Ann.,' xv. 26). It is improbable, however, though not impossible

* Precise dating, however, becomes rare on milestones everywhere after Severus.

† 'Cours d'Épigraphie Romaine,' p. 189.

that the *castra stativa* date from so early a period. To the reign of Vespasian, who made Cappadocia a consular command,* and reduced Commagene to a province, we might refer the laying out of a line of camps and posts along the frontier which, though defined by Pompeius, had required further definition by Corbulo, and been but little respected; and there exists one piece of positive evidence of Vespasian's work in Armenia Minor in the shape of a milestone found by Boré at Melik Sherif, which lies somewhere near the site of Arauraca, on the line of the frontier-road from Melitene to Satala.† Dion's‡ account of Trajan's Armenian expedition, however, makes it appear that no permanent Roman garrison was holding Samosata in 107 A.D.; and, according to Procopius ('de Aedif.' iii. 4), Melitene owed its foundation as a city to Trajan. The southern section of the Lines, therefore, seems to be of a later period than that of Vespasian.

Beyond the fact of the foundation of Melitene, however, there is no evidence that Trajan laid out any lines on the Euphrates; no milestones bearing his name have yet been found on the roads in the valley of the river. The earliest on the Caesarea-Melitene road are those of Septimius Severus; the earliest found by Professor Sterrett in Syria belong to the same prince.§ Further, as Professor Ramsay has pointed out to me, this negative evidence derives much weight from a comparison with Galatian and Pontic milestones, on which the evidence for the construction of the main road system in the north-centre of Asia Minor by Nerva-Trajan (i.e. Trajan in reality), is so abundant and clear,|| that it would be most unaccountable that none should exist on the Euphrates had Trajan really made the roads there also.¶

We have to choose, therefore, between Vespasian and Severus; or, perhaps, to ascribe the northern section of the Lines to the former, the southern to the latter. The milestone of Vespasian, quoted above, is proof positive that he constructed in 75 A.D. a road in Armenia Minor; but whether that was the road Satala-Melitene, or one from Nicopolis into Armenia Major, cannot be determined at present. Further south the evidence all tells in favour of Severus; and we may conclude with fair assurance that the latter either extended or completed, if he did

* Sueton. Vesp., 8.

† 'C. I. L.,' iii., 306.

‡ 68, 18.

§ Wolfe Expedition, Nos. 649 (on the road Palmyra—Hamath-Epiphania (?)), 651. To Caracalla belong 648, 650.

|| See 'C. I. L.,' vol. iii. suppl., pp. 1251 ff.

¶ The probable presence of Legio XII. Fulminata among the Quadi in the time of Marcus Aurelius might be used to confirm the supposition that the regiment was not stationed at Melitene till a period later than Trajan, if it had not been so frequent a practice with the emperors to call regiments far away from their *stativa* for campaigns of importance. At a later period, however, this famous legion is always associated with Melitene, e.g. by Dion Cassius ('Ep.,' 71) in relating the story of the "Miracle" among

not first lay out in its entirety, the system of lines on the Euphrates which served to keep the East at bay for five centuries. The question naturally arises, *why* the Euphrates was not thoroughly fortified earlier, and, in the present state of our knowledge, this cannot be answered precisely; but there can be little doubt that the key is to be sought in the Armenian policy of Severus as contrasted with that of earlier emperors. He was the first prince, in fact, to recognise definitely that Armenia was a hostile country, pertaining to the East, not the West, and outside the sphere of Roman influence. The formal recognition by Corbulo of the Euphrates as the Roman boundary * in 62 A.D., sufficiently proves that Pompeius' convention, made in 63 B.C., had become a dead letter, and that Rome had constantly regarded the trans-Euphratean states as her clients, and her real boundary as lying farther to the east than the river. In spite of Corbulo's convention, we find Trajan once more interfering in Armenian affairs in 107, and reducing Armenia Major for a short time to the rank of a Roman province.† In the reign of Marcus Aurelius, however, it was once more under its own king, and requiring the presence of Lucius Verus himself to restore Roman influence. No later emperor of Rome, with the exception of Probus, who made a raiding expedition, seems to have meddled with the internal affairs of Armenia Major, which fell under Persian influence about 238. It is a probable supposition that Marcus Aurelius was the last to treat it as a client state, and that Severus

the Quadi. Dr. Lightfoot has treated admirably many points relating to Legio XII. in 'Epp.' of St. Ignatius, i., p. 474 ff. I can add to the instances there enumerated of Fulminata = *κεραυνοφόρος* the following inscription, copied by J. A. R. Munro and myself at Adana in June, 1891. It is a limestone pedestal, slightly broken on the left: it came originally from Kara Tash (Mallus), and is now built into a wall of a cotton-factory near the railway station.

.....ΑΙΟΝΓΑΙΟΤΤΙΟΝ
.....ΑΟΤΙΑΝΟΝΤΕΞΞΑ
.....ΔΡΩΝΧΕΙΛΙΑΡΧΟΝΠΛΑ
.....ΜΟΝΑΓΕΓΕΩΝΟΣΙΒΚΕΡΑΤ
.....ΟΙΟΤΚΑΙΛΕΓΕΩΝΟΣ Δ
...ΘΙΚΗΣΟΙΙΕΡΕΙΣΤΗΣΑΘΗΝΑΣ
ΜΑΓ.....ΟΝΕΑΤΤΩΝΠΟΛΕΙΤΗΝ

Γαῖον Ἰούλιον Γαίου υἱόν
.... Φλαυιανὸν τεσσά-
ρων ἀνδρῶν χειλίαρχον πλα-
τύσημον λεγεῶνος ἰβ Κεραυ-
νόφ[ε]ρου καὶ λεγεῶνος δ
5. Σκυθικῆς οἱ ἱερεῖς τῆς Ἀθηνᾶς
Μαγ[αρσίας τ]ὸν ἐαυτῶν πολεῖτην.

Line 2.—The space at the beginning of the line would require a longer name than Flavianus, unless a contracted form of a tribe-name be inserted.

Line 3.—*τεσσάρων ἀνδρῶν* is a rare literal rendering of "quattuor virorum," i.e. he was "IVvir viar. cur.," one of the offices of the vigintivirate, the first stage of the senatorial cursus honorum (compare *πλατύσημον*).

Line 7.—Athena of Magarsa is mentioned 'C. I. G.,' 5875 b; cf. Arrian, 'Exped. Alex.,' ii., 5, 9. Magarsa (or Magarsus) is placed by Strabo (p. 676) on the Pyramus near Mallus, and said to have been the burial-place of the heroes Amphiloehus and Mopsus.

* Tac. 'Ann.,' xv., 17.

† See Liebenam, 'Forsch.' etc., pp. 49, 122.

emphasised the abandonment of a dream, and his tardy acquiescence in the advice of Augustus—"intra fines coercendi imperii"—by completing the fortified lines on the Euphrates of which the road which we followed forms a part.

For the disposition of the camps and troops on the frontier in Severus' time we have very little evidence; the following are the only certain data—

Satala	Legio XV. Apollinaris.
Dascusa	ala II. Ulpia Auriana.
Melitene.	Legio XII. Fulminata.
Samosata	Legio VII.*

For the later disposition we have the command of the "Dux Armeniae" in 'Notitia Dignitatum,' cap. 35, and, as we find that the troops there assigned to Satala, Dascusa, and Melitene (Samosata is not mentioned), are the same as in the time of Severus, we may infer that much of the disposition dates from an early period. Unfortunately, it is impossible to say on what principle (if any) is based the order of the place-names in the 'Notitia,' many of which are not easily to be identified, or connected with those in the Antonine Itinerary, Peutinger Table, Ptolemy, or other authorities. The general line of the frontier runs southwards from Trapezus to Satala, and thence down the right bank of the Euphrates; but the known names along this line are not enumerated in geographical order from north to south, but partly according to the character of their garrisons, and their status on the military lists; partly perhaps on some geographical system of strategic interconnected groups, which only exploration of the country itself will elucidate satisfactorily.

From other authorities, especially the Antonine Itinerary, we know the stations on the direct line of the frontier; almost all these occur in the 'Notitia' as points where troops were quartered, but mingled with them are other names, some unknown, some definitely placed by other authorities on cross-roads leading from western centres like Nicopolis and Sebastea, to Satala and Melitene. The system of defence for Asia Minor, therefore, appears to have consisted of three great *stativa* at Trapezus, Satala, and Melitene (to which Samosata may be added), connected by a continuous line of posts, mostly held by auxiliary cavalry (*alae*) or infantry (*cohortes*); while from these radiated chains of posts in various directions.

The scanty authorities which exist for the 3rd century of the Empire furnish no warrant that any of the emperors whose names appear on

* Ramsay, 'Hist. Geog.,' pp. 273-6. But cf. Böcking, 'Not. Dign.,' p. 388, *notes*, for the possibility of Legio IV. or XVI. having been originally at Samosata. Later Legio XVI. was stationed at Sura and IV. at Oresa (or Ourfa?).

the Melitene milestones traversed Severus' road. On the only one of Severus' own marches to the East, described in detail,* the emperor followed the recognised route of all such expeditions, viz., a diagonal line across Asia Minor to the Cilician Gates, and through the Syrian Gates to Antioch-on-the-Orontes. The latter city was always the rallying-point of armies destined to co-operate with the Cappadocian, Commagenian, or Syrian legions.

Though the milestones record no restoration later than that of Diocletian, it is practically certain that the maintenance of this, as of other roads in the empire, continued to be an Imperial concern for nearly a century longer. Down to the time of Arcadius the names of emperors continue to appear on *milliaria* in various parts of the East and West, though the instances become rarer and rarer. For example, milestones of Constantine are frequently met with; those of Julian are not uncommon in the West (e.g. 'C. I. L.' x., 6884, 6906: Italy, etc.); Jovian's short reign is commemorated both in Italy (6844, Via Appia) and in Cyprus (iii., 219, iv.); stones of Valentinian and Valens appear in Italy (x., 6975), and, with Gratian's name also, at Noricum (iii., 5740); of Theodosius I. and Valentinian II. in Gallia Narbonensis (xii., 5494); of Theodosius, Arcadius, and Honorius on the Via Labicana in Italy (x., 6885, 6910, 6913, etc.); and of Arcadius and Honorius in Attica (iii., 572, 573).

After the reigns of Arcadius and Honorius no emperor's name has, I believe, been found upon a milestone. The explanation is to be found probably in the *Codex Theodosianus*, the provisions contained in which, under the heading *De itinere muniendo* (xv. tit. 3, ed. Gothofred.), show that from the time of Constantine onwards the burden and care of repairing the roads was thrown more and more on local communities in the provinces through which the highways passed.† For example, by an enactment of Constantine, promulgated in 319 A.D., it was enjoined: *Emphyteuticarii possessores . . . , sicut ceteri provinciales, obsequium suum muniendis itineribus impendant: nulla enim ratione debent ab hoc, quod in commune omnibus profuturum est, esse sejuncti*. Again, in 387, under Valentinian II., Theodosius I., and Arcadius, ordinary immunities from this service were abrogated; and extraordinary privileges in this respect were revoked under Arcadius and Honorius in 399 *propter immensas vastitates viarum*. A notable enactment is that contained in section 6, including "*domos divinas ac venerandas ecclesias*," in the liability for road-rates, and beginning with the words, "*Absit ut nos instructionem vias publicae et pontium stratorumque operam titulis magnorum principum dedicatam inter sordida munera numeremus*," which seem to imply the final

* By Herodian, iii. 3: 195 A.D.

† The actual cost of the repairs had probably been borne for some time by the provincials; but the imperial officials were still responsible.

transference of the roads from imperial to local control. This law is dated in 423.

The vanity of the emperors who defaced and rewrote inscriptions, or erected new stones where five or six existed already, would not be imitated by local bodies. The older roads were already supplied abundantly with mile-marks, which sixteen centuries have not effaced, and the ponderous columns of the earlier emperors were not renewed. Sidonius Apollinaris, in the middle of the fifth century, speaks of them as relics of a former age:

“agger
Cujus per spatium satis vetustis
Nomen Caesareum viret columnis.”*

Thus the practice of erecting mile-pillars was discontinued in the beginning of the fifth century of our era, and not revived till almost modern days; but for many centuries the old stones must have sufficed as a standard of measurement and a solace to the traveller.

“Intervalla viae fessis praestare videtur
Qui notat inscriptus millia crebra lapis.”†

How the mile-intervals were marked, or whether they were marked at all, on roads made later than this period, it is impossible to say. We travelled in 1891 along the line of a Byzantine road from Sis (Flavias) to Hajin (near Badimon), without finding any trace of mile-marks; and the same may be said of the road which led down the Lycus valley from Colonia to Neocaesarea, the embankment of which may be seen in many places. Wooden marks, if any, must have been used.

The cessation, therefore, of milestone-inscriptions on Severus' road might be looked for naturally not long after Diocletian's time. The fact that they actually cease with Diocletian himself, and do not record any restoration by Constantine or his immediate successors, may be explained variously. *Milliaria* of Constantine, though not rare, are much less frequently met with than those of Diocletian, or such of his predecessors as had long reigns; and it is possible, therefore, that Constantine had his stones erected only on newly-made roads, or where the older stones really required replacing; in fact, that he did not continue the boastful and unnecessary practice of adding a ninth or tenth to the small groves of stones which already marked the mile-intervals. It should be remarked, however, that the later *milliaria* are generally of small size, and, therefore, more easily buried under silt, or conveyed to a distance to serve as modern building material, than

* Carm. xxiv., 5, quoted by Gothofredus, l.c.

† Rutil. Gall. Itin. ii., 7. Professor Ramsay compares 'C. I. L.' iii., suppl. 7080, where a similar idea is expressed upon a milestone of Valentinian, Arcadius, and Theodosius at Assus, dedicated *ad solacium laboris (et) festinationis*.

the older pillars; and therefore that their rarity may be due partly to the greater difficulty experienced in finding them. When allowance, however, has been made for such causes, it still remains probable that inscriptions on *milliaria* (like *all* inscriptions upon stone or marble), did become rarer and rarer as the 4th century advanced.

One point remains to be mentioned in this connection. There exist on Severus' road, as on other Roman highways, a considerable number of *uninscribed* milestones, which may belong to a restoration other than those recorded. We found such stones lying with groups *in situ* at the 136th and 114th stations, and many others were noticed both by Professor Sterrett and ourselves. The fact that they are found in the groups with other inscribed stones makes it improbable, though not impossible, that they are merely surplus material, never put into the lapicides' hands; and it seems not unreasonable to suppose that they do represent a later restoration than Diocletian's—perhaps one carried out by the local communities, and commemorated *more antiquo* by a stone, but one bearing neither emperor's name, nor (as so many records of the distance already existed at each station) any numeral.*

When Justinian† constituted the province of Armenia Tertia with Melitene for its capital and Arga, Arabissus, Cocusus, Comana, and Ariarathia for its principal towns, Severus' road must have served as its main artery, for all the places abovementioned are on the direct line of the road. The importance, however, of the easternmost section ceased with the beginning of the 8th century, when the Byzantine emperors lost all permanent control of Melitene;‡ and we do not hear of this part of the road again, although it continued to be used for local traffic until quite recent times. But the section west of Arabissus, whereby access was obtained to the Jihan Pass, still continued to be of some military and commercial importance; over it passed, for example, the raids of Basil in 877, and Romanus Diogenes in 1068, and the crusading expedition of Raymond, Bohemund, and Godfrey in 1097.

Lying as they do on the direct route from Constantinople through Angora and Kaisariye to Syria and Baghdad, we should naturally infer that the valleys of the Saros and Gyuk Su were traversed by a much-frequented road until the period at which the introduction of steamships brought the "half-sea" route by Samsun, Sivas, and Malatia into prominence. It must be confessed, however, that appearances in the Anti-Taurus region itself are not favourable to such an inference, and seem to point to the road in these valleys having fallen into comparative obsolescence many centuries ago. In the first place, the state of

* The numeral is often omitted on stones otherwise inscribed in full.

† Novell. xxxi.; cf. Ramsay, 'H. G.,' p. 313.

‡ 'H. G.,' p. 277. It was held for a short time by Constantine Copronymos in 752, but never again by a Byzantine emperor.

preservation in which the Roman roadway and milestones are found at this day is such as can only be paralleled in districts long deserted, like Cilicia Tracheia; secondly, the absence of old settlements and old populations in the valleys is very remarkable. Even in Gyuksun we found only Turkmans, still in a partially nomadic state, and a dying remnant of the Armenians who colonised the region in the 11th century. The villages around are, with hardly an exception, new settlements of Turkmans, Kurds, Avshars, or Circassians; and only in Yarpuz does there appear to survive an old "Turkish" element. There are no old *khans* on the line of the road, and it is obvious that the Jihan Pass itself has not been a trade route of importance for a long time, so thickly overgrown and so utterly broken up is the roadway. It is hard to believe that a district which preserves so faithfully relics of the 3rd and 4th centuries, but has so little to show from that date until our own time, and withal has no population older than the Armenian, can have been traversed by a first-rate trade route up to fifty years ago!

The reason for the desertion of this road for those through the Cilician and Amanic Gates, or by Sebastea and Melitene (if desertion there was), is perhaps to be explained by the insecurity which it owed to its long course among, or close under, mountains. As early as 404 we learn from John Chrysostom's letters, written at Cocusus, that the whole district, including even the towns of Cocusus and Arabissus, was continually exposed to the raids of the "Isaurian" brigands,* and the Archbishop draws a vivid picture of the miserable condition of his place of banishment, a picture which, even when allowance is made for an exile's point of view, does not suggest that Cocusus was even then on a flourishing trade route.

When the Armenians of the Exile came southward in the early part of the 11th century, they seem to have found in south-eastern Cappadocia a No-man's Land, for every place of importance now existing in that region was either, like Egin, Arabkir, and Albistan, founded by them, or, like Gyurun, so thoroughly "Armenized" that it is difficult to suppose that any considerable population was found already in possession.† The Anti-Taurus district was the first home of these energetic exiles; in 1064 Constantine Ducas gave "Dzamentav" (Tsamandos-Ariarathia, i.e. Azizie) to Kakig of Ani,‡ and all the chief towns between

* The references to the "Isaurians" are legion. Cf. Ep. ad Olymp. xiii., p. 610 (ed. Migne), where it is said that the brigands were strong enough to defy the soldiers in garrison at Cocusus; cf. lxx., p. 647, for the state of siege in which Arabissus was kept.

† See St. Martin, 'Arménie,' i. p. 180, &c. Also note that Tudebodius (v. *infra*) calls even the tract between Eregli and Kaisariye "Hermeniorum terra" in the 11th century.

‡ Dulaurier, in the introduction to the Armenian volume of the 'Recueil des Hist. des Croisades,' p. L.

the Tokhma Su and the Taurus date from about the same period. The change in the condition of Cocusus is shown in the contrast between John Chrysostom's description and that of the monk Tudebodus, who followed that section of the crusading army which passed down the Saros valley in 1097, and found "Coxon" (Gyüksun), "*stipata omnibus bonis quae nobis erant necessaria*."* Such prosperity was probably short-lived, for the more adventurous spirits pressed on southward, and presently established themselves south of the Taurus, leaving the northern towns on debatable ground between themselves and the Seljuk sultans;† for the frontier of Cilician Armenia was the Taurus, as is shown by an enactment of Leon II. with regard to a customs-house in the Jihan Pass.‡

The fall of the Cilician kingdom in 1375 saw the establishment of Zeitun as a centre of guerilla warfare within two days' march of Gyüksun, and the Armenians must have made trade through this part of the Taurus practically impossible: I was assured in Marash in 1891 that it was only within the past fourteen years that the passes had been opened. It is not wonderful, therefore, if merchants preferred long routes to inevitable encounters with Zeitunlis and Hajinlis.

I rely, therefore, both on the present aspect of the Anti-Taurus region and historical probability in advancing the view that Severus' road has been obsolete for many centuries. The revival of prosperity by the Armenian immigration was only temporary: Turkmans soon descended into the valley of the Gyuk Su, and maintained themselves there among the fast disappearing Christians,§ and in recent times successive immigrations of unruly Kurds, Avghars, and Circassians have effectually prevented any return of trade. If merchants or muleteers wish to go from Marash to Kaisariye, unless a very large caravan can be collected, they make a circuit of twelve days by Adana and the Cilician Gates, instead of going in six days by Gyüksun.¶ Hence it has come about that the region of Anti-Taurus is so wild a land at the present day; and that the traveller may observe in the valleys of the Saros and Gyuk Su relics of an old order which have often been lost elsewhere, and study among new peoples the signs of a new order which may affect deeply the future of the Ottoman Empire.

* 'Hist. de Hierosol. itin.' ii. 5, ed. Migne. See p. 650, *supra*.

† See p. 677, note, *supra*, for the condition of Albistan, which is a case in point.

‡ Dulaurier, op. cit. pp. xxvi., xcviii.

§ There are only 28 Christian families now in Gyüksun.

¶ Our Kaisariote muleteers waited ten days in Marash in 1891, until a caravan of 30 could be got together, and even then one preferred to take his animals by the longer route rather than risk a meeting with the Zeitunlis or the Mussulman nomads of Anti-Taurus.

PART III.

NOTES ON ROADS IN THE VILAYET OF SIVAS.

By J. A. R. MUNRO.

THE road-systems on either side of the upper Halys, northwards to the Black Sea and southwards to the Taurus, converge upon Sivas. From this centre radiate roads leading to Kaisariye, Gyurun, Malatia, and Devrik on the one side, and to Yuzgat, Samsun, Unie, Ordu, Kara Hissar, and Erzinjian on the other. The great highway of communication between the north and west and the south and east lies over the Chamli Bel and the passes south of the Halys, which is spanned near Sivas by two stone bridges. By this route pass the post-road to Baghdad, and a considerable caravan and araba traffic. It is easy to understand the importance of Sivas in such a situation.

That importance is of no recent growth. Sivas is the modern representative of the ancient Sebastea, which was probably Pompey's Megalopolis, renamed in early imperial times. The lack of inscriptions* and other relics of antiquity may suggest that the modern town does not occupy the exact site of the ancient; but several magnificent buildings attest the fact that Sivas was one of the earliest seats of the Seljuk power in Asia Minor. The position has, indeed, been of capital importance ever since there were roads in the country; and quite recently (1884-5-6), a complete network of good *chaussées*† has been extended from this centre throughout the vilayet. Sivas is thus the natural starting-point for an account of the roads in this part of Asia Minor, whether ancient or modern.

Sivas lies in the flat plain of the Halys, about a mile from the right bank, at an elevation of 5077 feet (24° 95' 71")‡ above sea-level. The river-bed is here about 80 yards wide, and is crossed by a stone bridge of 18 arches, with a slight bend against the current in mid-stream. The river, although not large in summer, is fairly rapid; and great quantities of timber are floated down from the hills along its upper waters to the bridge, where they are hauled on shore by teams of oxen. The other bridge is a couple of miles lower down.

* One from Pilkini, "one mile or more from Sivas;" 'Journal of Philology,' 1882, p. 150.

† They are, however, already in need of repair. Many of the wooden bridges in particular have collapsed, and torrents have swept away the road in places.

‡ The heights throughout Part III. are given as computed from our observations; I add the latter in brackets. We used R. G. S. aneroid No. 15, and the Fahr. scale.

I.—*Roads south of the Halys.*

Of the roads south of the Halys we are here concerned only with those which lead from Sivas to the valley of the Tokhma Su, one to Malatia, near the Euphrates, the other to Gyurun, at the upper end of the valley, just above the junction of the two branches of the river. The former is the highway from Constantinople to Baghdad; the latter has only recently been made practicable for wheels. For the first 25 miles the two coincide.

Leaving Sivas by the upper bridge, the road ascends abruptly 1300 feet, and descends again by a long gully to the Turkish village of Bardabash, which lies beside a small salt lake about half a mile to the right. After crossing a second ridge (5818 feet : 24°30'), an open, well-cultivated valley is reached, where beside two large salt lakes is the Christian village of Ulash, six native hours from Sivas. The village contains 140 houses, and has a prosperous air, rich in crops and cattle. Very large salt-pans exist near it, and gypsum is to be seen everywhere where rock crops out. An araba road (not a *chaussée*) from Tonos and Kaisariye comes in here.

Through travellers will save a wide *détour* by taking the track to the left of the main road before reaching Ulash, and following the telegraph along the eastern shore of the salt lakes close under the Terja Dag.

An hour south of Ulash the road forks to Gyurun and Malatia. The Malatia branch bears away to the south-east, up a grassy valley watered by a clear stream, to the pass of Delikli Tash. This pass is the one striking point between Sivas and Kangal, and forms the watershed between the Halys and the Euphrates. The road is confronted by the wall of a plateau 1000 feet high, up the face of which it climbs under precipitous crags. The most prominent of these is the great Delik Tash, which gives its name to the pass. There is no ravine—merely a steep winding ascent. The view of the valley and scarped slopes of the Terja Dag from the summit is impressive but dreary. At the base lies Maghra, an Armenian village, and half a mile over the edge of the platform is the village of Delikli Tash. The upland extends for about five miles, sloping very gently to the south, and is succeeded by open, undulating country, over which the road winds for two hours to Kangal. The levels over this section of the route are: Ulash (5483 feet: 24°60': 71°); a mill on the stream below Delikli Tash (5711 feet: 24°40'); village of Delikli Tash (6879 feet: 23°40': 67°); Kangal (5582 feet: 24°5'). On August 10th the thermometer registered only 67° Fahr. in the shade at 11 A.M. at Delikli Tash.

The general aspect of the country is much alike on both sides of the watershed. If there is a distinction, the south is even more bare and

monotonous than the north. The whole land lies so high, that the hills lack character; they have no striking outlines, but rather run in continuous ridges. There is a total lack of trees, and the not inconsiderable area of cultivation, chiefly corn-land, is lost in the general barrenness.

Kangal is reckoned 14 caravan hours from Sivas and 33 from Malatia. It is a large village, half Turkish, half Armenian, situated in a wide shallow basin between low hills. The land round about is well cultivated. There is a mosque with a new minaret, and an Armenian church. The village is evidently of some antiquity, for the church, now mostly of wood, has been rebuilt partly of older materials, and fragments from buildings are to be found in the cemetery. In the church is treasured an illuminated Armenian manuscript of the Gospels, with a rich binding ornamented with brass figures and red stones, said to be eight centuries old. The Roman road from Sebastea to Melitene must have followed much the same course as the modern route; and Professor Ramsay* has very plausibly placed the Euspoena of the Antonine Itinerary at Kangal.

We here leave the Malatia road and strike south-westwards to rejoin the Gyurun road at Manjulik. The intervening country is arid and bare, open valleys between low white earthy hills, and very desolate. The only village on the road (which is easy and fairly level, although not "made") is Tirza Khan, a group of miserable hovels with a bad reputation,† about 2½ hours from Kangal. A mile farther on the little Chamali Su must be forded, and three quarters of an hour later a direct road from Derende to the north is crossed, half an hour before reaching Manjulik. A wooden bridge leads across the Ginolu Su to the village, which straggles up a lateral *dere*. There are 120 houses, all Armenian. At the top of the village is an old church and monastery, well built, but in simple style. It was in Manjulik that we copied a little Greek sepulchral inscription, the only antiquity encountered between Gyurun and Sivas.

To the south and west of Manjulik stretches Uzun Yaila, an elevated tract of country, very sparsely inhabited, and haunted by predatory nomads, chiefly Circassians. It is traversed by cross-roads to Azizie, south-west, and to Tonos, north-west, whence Ainsworth reached Manjulik. The Gyurun *chaussée* runs straight across a level plateau for about an hour and a half, and then for an equal distance over uneven ground to Buyu Delik, a poor Turkish village nestling under steep crags. The road here enters on a barren upland. Two

* 'Hist. Geog.', p. 275.

† Although not in Uzun Yaila, this district contains many Circassians, whose services to Turkey in the last Russian war are rewarded by a degree of immunity from official control which does not conduce to the safety of the roads. The inhabitants of Tirza Khan, however, are not Circassians, but Turkmans, described to us as "all robbers."

hours later the old horse-track diverges to the left, and offers a welcome short cut to Gyurun with the following stages:—1 hour 20 min., a watershed; 40 min., a bridge over a small stream at the bottom of a broad valley; 1 hour, a spring at the entrance to a rocky defile; 1 hour, Gyurun entered from the lower end of the long straggling township.

It is easy to recognise in Ainsworth's description of his ride from Manjulik to Gyurun the "black stony upland" at the beginning and the "narrow ravine" at the end; but the new *chaussée* seems to follow a different line from his road. At least, it is difficult to identify on the present route the pass "called by the Turks Sakal-i-Tutun."

The Roman roads of the whole of Central Cappadocia are in great confusion. I imagine that when the country is better surveyed and more sites are identified, it will be found that the Antonine Itinerary incorporates branch roads in main routes, much as a bungling clerk might incorporate the branch lines in the main lines of a modern railway time-table.* For the present, as Professor Ramsay remarks, "the roads are too corrupt, and the localisation of every point too uncertain, to justify any scheme of reconstruction." There is much to be said, however, in favour of his own reconstruction† of the direct road from Arabissus to Sebastea, which must, he argues, have followed much the same route as that already described. The pass at Delikli Tash is a fixed point on a road running south-east, for the Terja Dagħ precludes circumvention of it towards the east, and the situation of Kangal is admirably suited to Euspoena.

II.—Sivas to Enderes and the upper Lycus Valley.

Let us now return to Sivas, and make a fresh start eastwards along the north bank of the Halys to Enderes. The road, a new *chaussée*, in fairly good order, keeps the river valley, but at some distance from the river itself. The ground is mostly level, a bare and dry but fertile plain, broken by occasional knolls. Distant mountains close the view

- * For instance, the short road which appears as

a Cocuso	lii.
Ptandari.	xxviii.
Arabisso.	xxiii.

ought to be read as

a Cocuso	
Ptandari	xxviii.
Arabisso.	xxiii.

the branch road to Ptandaris, situated at Tanir in the valley of the Khurman Su, diverging before Arabissus.

† 'Hist. Geog.', pp. 274, 275.

on either side. There is a considerable timber traffic, and we noted that the harvest was being gathered with European pitchforks and rakes—a sign of the influence of the model farm recently founded at Sivas.

The road passes between two Armenian villages about three hours from Sivas, Hanza on the left and Boyudun on the right. An hour later it reaches Guvre, a very mean place, supplied only with brackish water. Here a low spur is crossed, and the road gradually approaches the river until at Koch Hissar (5271 feet: $24^{\circ}80' : 75^{\circ}$), five hours from Sivas, there intervenes less than a mile. Opposite to Koch Hissar a bold bluff projects from the end of a low ridge into the stream, and astride on the neck of this promontory is Kemis, a mixed village of 55 houses, which obviously preserves the name of the ancient Camisa, an important station and fortress on the road from Sebastea to Nicopolis. Except a splinter of column and some fragments of an old church, there are few traces of antiquity.

A wooden bridge crosses the Halys under the eastern face of the rock, and it is probable that there was an ancient bridge at about the same point; for, although there is no reason to suppose that the Roman road followed the south bank of the river rather than the north, and Koch Hissar, itself a strong position on a precipitous rise commanding the road, may claim to represent the more important part of Camisa, yet if Eumeis is really a corruption of Camisa (as the distance to Zara suggests), the direct road of the Itinerary from Arabissus to Nicopolis* seems to imply a bridge there. The military importance of the station also favours this hypothesis. The Halys is, however, easily fordable in summer on the other side of the rock.

Strabo (p. 560) mentions not only an old fort at Camisa, but also salt mines; and the presence of salt in the soil is attested by a series of small brackish lakes a little farther to the east. The road keeps along a low ridge between these lakes and the river, through undulating country partly under corn, but bare and treeless except about the villages. Of these the most prominent are Yarasa, an hour and a half from Koch Hissar, and Yenije, half-an-hour to the south-east, on the opposite side of the river. The road then descends to the Halys, and skirts its bank for some distance, passing the rickety wooden bridge whereby the track from Yenije crosses. There follows another piece of uneven ground, where the road again runs between salt lakes and the river, until it enters a long straight valley with high walls, which leads up to Zara.

Zara (5451 feet: $24^{\circ}65' : 76^{\circ}$) is reckoned 12 hours from Sivas. It is rather a little town than a village, with a small *bazar* and modern

* I do not understand why Professor Ramsay ('Hist. Geog.,' p. 275) doubts the existence of this road between Euspoena and Camisa.

church, and lies at the junction of a tributary stream from the north with the Halys. A new high road from Devrik, said to be 18 hours distant, here crosses the river on a long wooden bridge with stone piers. Zara still retains its ancient name, but we could hear of no antiquities except a fragmentary Greek inscription of late date and no importance, built into a corner of the church of an Armenian monastery, a mile outside the town.

We here leave the Halys and ascend the side valley to the north. A short cut over a ridge (6413 feet : 23·80) takes us in 2 hours 10 minutes to the roadside *khan* of Arabja Kupru, at the bottom of a wooded glen. The road, which is often bad and very heavy after a night's rain, although just practicable for an *araba*, enters a narrow gorge cut by the stream, and then climbs up steep slopes, through the pine forest to the watershed (5699 feet : 24·40) between the Kizil Irmak (Halys) and Tozanli Chai (Iris), reached in 3½ hours from Zara. The hills are everywhere thickly clothed with pine trees, and much timber is felled for the Sivas market by savage-looking woodcutters, who cart it on bullock-arabas down to the Halys. A cool upland valley, inhabited by Greeks and Circassians, where the corn is still green in the middle of August, is succeeded by a long gradual descent to the head stream of the Iris, forded* two hours after crossing the summit. The stream bears away westwards down to the left, rapidly descending between beetling rocks amid luxuriant and varied woods and undergrowth. About an hour lower down in this beautiful valley is the hamlet of Istoshun, on a horse track to Tokat. Built into the chimney nook, one on each side of the fire, in an underground chamber of one of the houses, stand two large split columns, on the flat side of which are carved in relief a number of strange symbols, perhaps early Armenian.

The Enderes road, however, mounts the slope opposite the ford for a mile and a half to a *khan* (5945 feet : 24·10) over against Kechiut, which lies across a wide open dip to the left. In the village churchyard we found a Greek inscription, which seems to record a pious foundation or restoration by the Emperor Justinian.† The stone is said to have been brought from a place known as "the pointed hill" (Sivri Tepe) about three hours distant to the east. If this be true, Sivri Tepe may be the site of Dagalassos, on the direct road Zara-Nicopolis. The road continues round the hills to the watershed, between the Iris and the Lycus, reaching Dermen Tash in the Lycus valley in four hours; but there is a shorter horse-path from the back of the *khan* up a long ravine running nearly due east. The path is almost level as far as Gyusuk, (1 hour), a village of 80 houses with a large new church, inhabited

* The bridge has collapsed.

† To be published, with other inscriptions of this district, in a collected form shortly.

solely by Greeks who speak an indescribably corrupt dialect of Greek.* A mile to the right is Bazar Gyusuk, shared between Greeks and Kurds. The walls of the ravine are steep and bare, but the level land at the bottom is cultivated, and harvest was in progress on August 17th. From Gyusuk there is a gradual ascent for three quarters of an hour up a little stream to the edge of the Lycus valley, 6837 feet (23°45'). The view which at this point bursts upon the traveller is a very fine one: at his feet the ground suddenly drops 1200 feet, on the right wooded spurs run up to the bare rock, and diagonally in front stretches the river-plain flanked by magnificent mountain barriers. A steep difficult descent leads down to a rivulet (5582 feet: 24°50') in 35 minutes, and thence the path winds over the roots of the hills to the Greek village of Dermen Tash (1 hour). Dermen Tash is 2½ hours from Enderes by the *chaussée*, but it may be worth while to keep up to the right of the road and visit Sis, an Armenian monastery, prettily situated on an upper slope (5447 feet: 24°65': 75°) among trees and gardens. The church seems to be of some antiquity, and is said to have been built by the Armenian king of Sivas, Sennacherim, in the 11th century. The monastery is spacious and well-kept, with a large entrance hall or refectory. It is the occasional residence of the bishop of the district, but is usually almost deserted. Rough cross-country tracks lead to Dermen Tash in two hours and Enderes in one and a half.

Enderes (4363 feet: 25°60': 74°) lies above the plain on the western edge of a deep gully. It is a pleasant little town of 800 houses, more than half of which are Turkish, well supplied with water, and surrounded by gardens and patches of real green turf. The Lycus valley is here broad, straight, and flat, although broken by occasional spurs and watercourses from the hills. The river keeps well to the northern edge of the plain, some distance from Enderes. An easy horse-road, fairly level except for a *dere* here and there, leads along the base of the hills eastwards to the Armenian village of Purk, about three miles from Enderes, on a fertile plateau. The considerable ancient remains at Purk would suffice, even without the evidence of inscriptions, to identify it with the Roman Nicopolis, founded by Pompey on the field of his victory over Mithridates, and thenceforward throughout antiquity the most important civil and strategic centre in this region. The highway from Pontus and northern Cappadocia to the Euphrates and Armenia lay through Nicopolis. It was here that the roads up the Lycus and up the Halys united. The modern routes from Zara direct to Devrik, over the Kara Bel, and from Trebizond to Erzerum were not then developed. The military roads up the Euphrates, and from Trapezus, the naval station of the Roman Black Sea fleet, and the

* See part i., p. 650.

stativa of Legio I. Pontica, met at Satala, the headquarters of Legio XV. Apollinaris, higher up the Lycus valley, and were continued westwards only through Nicopolis.

The ancient site is of an oblong shape, and projects to the north of the modern village. The whole north wall, and the northern half of the east and west walls, are easily traced by their rubble and cement core. Here and there a few courses of the stone casing remain, and, at the north-east angle, a considerable fragment of a square tower is still standing. It is, perhaps, not impossible that the name Purk is a corruption of Πύργος, and the legend recounted by Boré* an etymological fiction attached to a survival of a Pagan festival. The north wall, a short side of the oblong, must be about a quarter of a mile long. The enclosed space, as far as the village, is cultivated as a vegetable garden. In the village, many fine, squared blocks of marble, caps, fragments of cornice, etc., are to be seen built into the houses. Inscriptions are less numerous than might be expected; we found only three Greek epitaphs and a Latin fragment. Boré's inscription,† which names Nicopolis, seems to have disappeared or been forgotten. On the top of the hill overhanging the village, lies a broken sepulchral *stèle*, a bust in relief of a Roman lady, over a panel which has never been inscribed.

Twenty-two minutes east of Purk is another village, on a steep, rocky spur projecting into a small ravine, and easily approached only from the south-east. The topmost crag forms an acropolis of great natural strength, which has evidently been fortified, and still displays vestiges of a stepped ascent and a cistern on the summit. The superior defensive position and the name of this village, Eski Sheher, i.e. Old Town, suggest that the original settlement must have been here and not at Purk, but transplanted to the latter site either by Pompey or at a subsequent date. That the supposed transference was later than Pompey's foundation is a view perhaps favoured by Hirtius' description ‡ of the second battle of Nicopolis, in which Pharnaces defeated Caesar's lieutenant, Domitius Calvinus. Domitius seems to have marched along the hills, past Nicopolis, and encamped near Ashkhar, in the narrow valley described below, whence he descended to attack the enemy under the walls of the town. Pharnaces, seeing that the attack must come from the south-east, prepared the ground by digging trenches across the exposed level. The 36th legion penetrated round the trenches to the eastern wall of Nicopolis, and, after the defeat, withdrew to the roots of the hills, and finally retired up the Ashkhar road to the Halys and Cappadocia. The site of Eski Sheher seems to fit this description better than the more open

* Quoted in Ritter's 'Erdkunde,' xviii., p. 214. The festival of the Nicotimia, if genuine, is particularly interesting.

† *Ibid.* τῇ λαμπροτάτῃ βουλῇ καὶ τῷ κρατίστῳ δήμῳ Ἀδριάνῃς Νικopolέως.

‡ 'De bello Alexandrino,' 36-40; cf. also the Ἀδριάνῃς of the inscription.

position of Purk. In the cemetery of the village we copied a Greek sepulchral inscription.

A mile and a half beyond Eski Sheher, after passing below the hamlet of Jausli, the little river Ulu Chai is reached, and crossed by a wooden bridge. It is an affluent of the Lycus, and flows down a narrow defile from the southern hills. Up the right bank runs an easy horse-road to the small village of Ashkhar, or Aksheherabad (4478 feet : 25° 50' : 74°) whence it crosses to the upper valley of the Halys, and reaches Zara in twelve hours. This road is in common use by travellers between Kara Hissar and Sivas who wish to avoid the *détour* by Enderes.

It is certain that the Roman road from Nicopolis to Sebastea took the same course. The wanderings of the stream and landslips from the steep earthy slopes have indeed almost obliterated all traces of it, but its line may still be marked by an attentive eye in one or two places, and in a garden hedge at Ashkhar lies a milestone with the following inscription :—

IMP
CAESARIDIVITRAIA
NIPARTHICIFDIVINER
VAENEPOTITRAIANO
HADRIANOAVGPM
TRIBPOTXIIICOSIIIPP
CIVITASNICOPOLITA
NOR

MP
VII
Z

Imp.
Caesari divi Traia-
ni Parthici f. divi Ner-
vae nepoti Traiano
Hadriano aug. p. m.
trib. pot. xiii. cos. iii. p. p.
Civitas Nicopolita
nor(um)

MP
VII
Z

Ashkhar is just about seven Roman miles from Purk. The stone is reported to have been found in the bed of the stream immediately below the village, near the point where there is a fragment of masonry which may possibly have been the abutment of a bridge. The red colour in the letters, however, is as fresh as the day they were painted. Possibly the stone was buried, and washed out by the stream.

Both at Enderes and at Purk we were told of ancient remains at Sushar, about 13 hours—say 40 miles—farther east, up the Lycus valley. There was some difference of statement as to the precise locality, and Sushar seems to be a wide term for a whole district; but no doubt these ruins, wherever they are, represent the Roman Satala, which Kiepert, on the strength of the similarity of the names, has conjecturally identified with Sadagh. Sadagh, however, if the maps may be trusted, is rather too far east, and the place most frequently mentioned to us was Jelat, said to be near some mines on an unfinished road to Erzinjian, where there are reported to be two written rocks or stones. But Satala lay beyond the scope of our tour, and must be reserved for another expedition.

III.—*Down the Lycus from Enderes to Niksar.*

The Lycus is known either as the Germili Chai or as the Kalkid Irmak. Germili or Germeri, Kalkid or Kerkit, are places near the source of the main or southern stream, which unites with the northern branch a little below Kara Hissar. In the name Kalkid has been plausibly recognised a corruption of the Armenian Kail Kyed = Wolf river = Lycus.* If this identification is correct it is difficult to decide whether the Greek name or the Armenian is the earlier.

From the junction of the two streams down to Enderes, the Lycus valley is broad and open, but just below that point contracts to a narrow defile, and except for a momentary expansion at Koilu Hissar, nowhere opens out to more than half a mile's breadth until the plain of Niksar is reached. The course of the river is fairly direct, but a large section is represented only by a dotted line on the maps, and the region traversed is little known or explored. It is a rough hilly country clothed with pine forest; on the left is the ridge of wooded heights which divides the valleys of the Lycus and Iris. It must have been along this ridge that Domitius Calvinus advanced from Comana Pontica to Nicopolis, keeping the hills for fear of sudden attacks from the enemy's cavalry.†

To the right stretches the rugged tract which Strabo seems to regard as a continuation or part of the Paryadres Range, and speaks of as dotted with scarcely accessible fortresses, wherein Mithridates stored his treasure.

The Lycus, as has been mentioned, runs along the side of the valley opposite to Enderes, close under the northern mountains. The road to Koilu Hissar, gradually descending, strikes across to the mouth of the gorge at the north-east corner of the plain. The actual river-channel is at length reached by a sharp descent over steep earth-slopes near the junction of a tributary stream, two hours out of Enderes. There is a road on each side of the river; the usual route from Enderes, which is followed by the telegraph wires, keeps to the left bank, but the horse and post-road from Kara Hissar, often a mere track, skirts the right bank.‡ We cross to the latter 40 minutes lower down, at Aiyas, a cluster of a dozen Turkish houses among gardens. The level of the river is here 3065 feet (26·80) above the sea. The ford is only practicable when the water is low, for the Lycus is already a large stream, turbid and rapid, with a breadth of about 50 yards. A mile below the ford are vestiges of a large village, possibly Byzantine. The steep walls of the

* *Vide* Ritter's 'Erdkunde,' xviii., p. 201.

† 'De bello Alexandrino,' 35.

‡ See for a rather exaggerated description of this road, Ker-Porter's 'Travels,' vol. ii. pp. 688, ff.

ravine then draw together, and the road becomes difficult in places. The river has evidently wandered to and fro, and brought down avalanches of earth first from one side, then from the other. There is plenty of undergrowth, but not much timber except on the heights. Two hours from the ruined village there comes in sight the picturesque mediæval castle of Koilu Hissar, which crowns a group of lofty pinnacles of rock overhanging the right bank. The colour of the rocks is very striking—a brilliant yellow streaked with red. The precipitous cliffs are inaccessible from this side, and although the castle is so near, there is a long circuit to be made before reaching Koilu Hissar. First we ride through a series of fruit gardens, then a mile after passing the castle the ravine opens out, and we emerge upon a broad new *chaussée*—the high-road from Sivas to the port of Ordu, which diverges from the Enderes road near Kechiut, and here crosses the Lycus on a covered wooden bridge with stone piers. The distance to Kechiut is reckoned six hours from this point. The *chaussée* presently turns up a valley to the right, and ascends steadily to the *café* and small *bazar* of Koilu Hissar, 65 minutes from the bridge. The town is much scattered, straggling up the glen for several miles among trees and gardens. There are said to be three or four hundred houses. Melet, the capital of the *sanjak*, is reckoned six hours distant, and Ordu twenty-four. A stone carved with three crosses, doubtless a lintel from a church door, seems to be the oldest object in the place. The town as a whole wears a look of recent prosperity, and has probably benefited by the new highway.

The ordinary, and no doubt better, road from Koilu Hissar to Niksar is through Melet and across the hills, but there is also a horse-track down the Lycus, which is here described.

From the *café* we descend again, cross a bridge over a rivulet to the other side of the glen, and reach the Lycus in 50 minutes. About three quarters of a mile lower down, the valley is almost blocked by a great rock, which juts out from the hills on the right. On the top is a mosque and holy tomb, but there are clear traces of an old fortress visible from below, which is known as Asha Kale = the Lower Castle.* The base of the rock is washed by the swirling current, and the opposite bank is a precipitous bluff. The path has to be carried round the point by cutting, and abruptly crosses the river on a new bridge to the lower land behind the bluff, where there is a deserted *khan*, a strong loopholed building. Asha Kale must always have been an important position; it is certainly the most striking and defensible point in the whole middle course of the Lycus. Probably this lower castle was meant to guard the river road, Koilu Hissar the hill road, the two forming complementary parts in one scheme of defence.

* Noticed by Ouseley from Koilu Hissar. Bitter, *op. cit.*, p. 218.

So far there is some attempt at a made road, and the new bridge seems to indicate an intention to develop the river route; but below Asha Kale there is only a track, and that steadily grows worse. The scenery is pretty, even beautiful in places; as, for instance, where the rapid river rushes round some projecting spur. The pine forest descends to the foot of the slopes on each side, and the river banks are green with grass. Villages occur at intervals. Three hours from Koilu Hissar and a mile from the Lycus, up a *dere* to the left, is Gweba, a settlement of *Kizilbash* (i.e. heretic Mussulmans) (3170 feet: 26° 70'). Opposite on the right bank is Eksi, a Mussulman village, and two miles lower down Mudasu, on the left bank, whence there is a cross-path to the Iris valley and Tokat.

Both at Gweba and elsewhere we found the *Kizilbash* most hospitable and friendly to strangers. There are five or six villages of these heretics, who are not Kurds, but aborigines to all appearance. They are almost completely ignorant of the world outside, and their agricultural implements are of an extremely primitive character. It is probable that they represent the dying remnant of an original population of the valley never thoroughly converted to Islam. They have the delicate facial type and timid manner which one associates naturally with a worn-out race. It was in the heretic villages that we first observed a curious form of araba without wheels. The back ends of the poles are bent round under the cart, and form runners, upon which it rests like an elevated sledge, thus avoiding the difficulties of the rough ground.

After Mudasu the road becomes difficult, often climbing the steep earth slopes to avoid bends of the river. An hour below the village the level of the water is 2530 feet (27° 30') above the sea, and half an hour farther down Alama is passed—a Turkish village on the other bank. Yet another hour and a half and the road crosses a bridge to Kundu, a group of wooden cabins among gardens belonging to the village of Taurla, which lies higher up in the hills. Near this place we first encountered traces of an ancient road. Twelve minutes above the bridge of Taurla (2485 feet: 27° 35': 80'') there stands a fragment of a Roman bridge finely cased with masonry. It is the abutment on the right bank, to which the road must have crossed at this point. Below Kundu, after a slight rise has been surmounted, the dyke of the ancient road is traceable at intervals for about an hour, and reappears for a moment even farther down; but for the most part it has been undermined and swept away by the ever-changing curves of the river. Enough, however, remains to prove that there must have been a Roman road up the Lycus from Neocaesarea to Nicopolis.

The modern track runs, now across bare flats, now through low bushes, here on the strand, there up the bank, but grows ever fainter

and fainter. Two hours and three quarters from the bridge a few shepherds' huts and folds are reached, not far from Chal Dere, which lies on the other (left) bank. Our guide had long been beyond his knowledge, and the path was here reported to be so difficult, and the valley so sparsely inhabited, that we thought well to leave the Lycus and turn up into the hills to the right.

A fairly good horse-road was soon hit upon, which led to a Turkish village—Bardakli—50 minutes from the Lycus valley. The upland slopes, back from the river, are to a large extent cleared and cultivated, and are thickly dotted with hamlets and villages. Half an hour to the west of Bardakli is Kara Tash, and at the same distance to the north lies Maghodun (Turkish), evidently an old village, dominated by a ruinous fortress. Twenty minutes beyond Maghodun a summit is crossed, and a short abrupt descent leads down into a most beautiful little glen. Lofty cliffs and towering heights close in the upper end, a bright lake lies in the hollow, and mirrors the rock and foliage of the steeps on both sides, which are clothed with a dense growth of oak, cherry, and other trees, and through the dainty green meadow above the lake dances a clear brook crossed by a rustic wooden bridge. It is a view that, after the monotonous pines and scrub and dreary yellow earth-banks of the latter part of the Lycus valley, has a singular charm, even at the close of a long day's ride.

We pass the bridge and mount the other slope to Zina (4769 feet : 25°20' : 66°), a Turkish village on an open grassy hillside commanding an extensive view across the cleft of the Lycus. We lost our way and some time in the wood; but Zina cannot be more than an hour from Maghodun. It was a welcome surprise, and pleasant indication of the comfortable rural life sometimes latent in an out-of-the-way Turkish village, to find ourselves sumptuously entertained in a handsome panelled room, the fittings and decoration of which were both rich and tasteful. Several villages, or rather groups of *chalets* (for one name is given to huts spaced widely over two or three square miles), are within view from Zina to the south or south-west: Tinia Bagh half an hour lower down the hill, Yenische more remote, on the opposite side of the Lycus, and others. The whole upland country is pretty—cornfields and pasture interspersed among woods and rocks, and sprinkled with clusters of wood *chalets*.

Leaving this region, the road—which, although not metalled and rather narrow, is practicable for rough wheeled traffic—winds down round wooded hills and through cultivated valleys to the brink of the Niksar plain. On emerging from a thick pine-forest near Zina there is a rapid descent; but this fall is partially recovered by an ascent to Uljak (4155 feet : 25°80'), three hours and a half from Zina. Thence there is a rough drop by a short cut to Tenevli (2642 feet : 27°20' : 79°), a group of log-huts and gardens about an hour and a quarter beyond

Uljak. But the araba road avoids Tenevli, and pursues a more level course along the hillside. Tenevli to Niksar is nearly two hours. There is nothing to note on the way except the steep descent at the end, where the road is paved in places.

Niksar (2070 feet above the sea : $27^{\circ} 75' : 84^{\circ}$) lies in a fold of the hills opening from the north-east on to the broad flat plain through which the Lycus flows after emerging from the forest ranges. The situation is striking. In the middle of the grassy ravine, and mounting upwards towards its head, rises a rocky crest, which formed the acropolis of Neocaesarea. It is crowned by a ruined castle of great extent and strength. Most of the building seems to be not earlier than the Byzantine period, but there is one hexagonal tower of good Roman masonry near the western extremity of the citadel. The northern side of the ridge is precipitous, but the whole of the steep southern slope is included in the outermost wall of defence. Against this outer wall is picturesquely planted the main street of the modern town, divided from a large outlying quarter by the stream at the bottom of the valley. From the modern bridge may be discerned remains of an older structure a little farther down, and on the outskirts of the town are several ruined buildings, a series of rubble arches, and a Seljuk gate and tomb. The houses are of wood and stone mixed; the flat mud roofs of the interior here give place to the sloping tiles characteristic of the northern towns. There are two very late reliefs built into the wall of the *konak*, and local tradition tells of written stones taken to Stambul; but we failed to find any inscriptions.

Neocaesarea is mentioned by Pliny ('Nat. Hist.' vi. 8), but unknown to Strabo, to whom the principal town of this district was Cabira. Cabira was a royal residence of Mithridates, refounded by Pompey as Diospolis, and afterwards named Sebaste by Pythodorus.* The suggestion of Mannert and Hamilton that Cabira-Diospolis-Sebaste is to be identified with Neocaesarea is extremely probable. Cabira was about twenty miles south and east of the junction of the Lycus and Iris, at the eastern extremity of the plain of Phanaroea (Strabo, p. 556), on the way to Armenia, near the Lycus, and on the right bank, for Mithridates crosses the river into the plain (Tash Ova) when he advances against Lucullus (Plut. 'Luc.' 14, 15), and not far from Comana, whither he retires after his defeat (Appian, 'Mithr.', 683, 82). No situation has been suggested which better fulfils all these conditions than Niksar.

IV.—*Niksar to Tokat.*

Niksar is about two miles from the Lycus. The plain is marshy, and grows quantities of maize, rice, etc. The river flows in several

* Strabo, 556-557.

streams down a very wide bed; it must come down in great volume when swollen by the melting of the winter snows. The height above the sea is here 1393 feet (28·40). A bridge, which cannot be less than 300 yards long, with stone piers and a crazy wooden superstructure, carries the road to the opposite bank. Thence it is an hour's ride to Duneksa, at the foot of the hills, so the Lycus plain must be at least five miles broad. On the slopes about Duneksa much tobacco is cultivated. From this point the road, a highway in excellent order, ascends a wooded valley for nearly an hour to an elevated plateau, on which it passes between the villages of Oktap (3280 feet: 26·60), 70 minutes from Duneksa, on the right, and Almush, on the left, half an hour farther on. Ten minutes beyond the latter village the watershed is reached—3489 feet (26·40)—and there follows an easy descent of three quarters of an hour to the Iris valley. The new *chaussée* runs straight on, keeping a couple of miles to the right of the river, and crosses a nick in the ridge of Karakaia, which bars the valley half an hour lower down. We preferred to strike off to the right to join the old horse-road at Omala, where the Iris, coming down from Kechiut,* issues from the hills.

At Omala we found and copied several inscriptions, a couple of Greek tombstones, and the two following fragments of Roman milestones:—

(i.)	IM	. . . .
	. \XIM	m]axim-
	..AVGPR	us] aug. (t)r-
	...NICIAE	ibu]niciae
	...ESTATI.	pote]stati[s
	..AMPES	vi]am [r]es-
	.../I....	tit]ui[t per

(ii.)

(1.) On a stone, much broken, in the stable of Ibrahim Effendi.

.....	[Impp. Caess.]
...RVAL....	C. Au]r. Val[erio
DIOCLETIANO	Diocletiano

(2.) On the back of the same stone: the upper lines are confused by a superscribed text. The stone was in the darkest corner of a stable, lighted only by a door; and it was quite impossible to unravel the tangle of letters under the circumstances. The superscribed text does not seem to be an imperial formula at all.

* V. *supra*, p. 726.

C I H U A T I	.....
Λ P A P E	.....
N V . . . P . A E S T I U R C O	... Im]p. [C]aes. (Fl). V(a). Co[n-
S . . N . . N . . I C T O R I A C	s[ta]n[ti]n[o v]ictori ac
. R I U M F S E M P E R A U G	t]riumf. semper aug.
E T F L C L C O N S T A N T I O	et Fl. Cl. Constanti[n]o
. . . . I U L C O N S T A N T I O	et Fl.] Jul. Constantio
.....	[et Fl. Jul. Constanti]
.....	[nobb. Caess. etc.].

There can be little doubt that the stones belong to the ancient road from Comana to Neocaesarea, which must therefore have taken the same course as the Turkish horse-road, not the new *chaussée*. The possibility of a direct Roman road from Comana to Nicopolis up the Iris is not perhaps entirely excluded, but is scarcely probable; for not only is the Lycus route easier, avoiding the high pass at Kechiut, but we have also found independent evidence of a road up the Lycus valley, and a second at so short an interval seems superfluous.

Between Omala and Gumenek, the site of Comana Pontica, we discovered no more traces of the Roman road, unless the cuttings, whereby the point of the Karakaia ridge is rounded close above the waters of the Iris, may be counted as such. But beyond question the ancient road kept down the river and round this point. The horse-road rejoins the *chaussée* about two miles short of Gumenek, near the hamlet of Kizil Koi. The total distance from Omala to Gumenek is about two hours and a half; from Gumenek to Tokat one hour and a half.

The river below Karakaia winds through a wide open plain, until at Gumenek (2743 feet: 27·10) it once more approaches the hills on the left. At this point a low hillock, about half a mile in circumference, rises from the right bank. It is covered with the *débris* of buildings, squared stones, rubble walls, blocks of marble, and fragments of columns, the wreck of the great temple. At the base on the river-side are the abutments of a Roman bridge,* and a few yards higher up is the new bridge, into which are built fragments of an inscription that makes mention of ἡ Ἱεροκαίσαρῶν Κομανέων πόλις.†

The remains of buildings extend over the level to the east of the hillock, but nothing is standing except two ruinous structures, both of them very late work, and the larger probably an old *khan*.‡ The

* So lately as the year 1836, the two extreme arches of this bridge were still perfect; *vide* Hamilton, i., p. 350. Here, as on the Halys above Sivas, quantities of pine logs are floated down the Iris from the hills.

† Cf. 'Journal of Philology,' 1882, p. 152.

‡ Cf. Hamilton, 'Researches,' vol. i., p. 349.

temple mound itself is deeply buried in rubble of the same character; and as there are no villages in the vicinity, but only a few scattered farms, and the distance to Tokat is not inconsiderable, the ruins have never been exploited to any extent, but ought to yield a good result to the excavator. A mile or so to the west, on the right hand, is an old chapel or tomb, possibly the ancient tomb described by Hamilton ('Researches,' vol. i., p. 350), but we had no time to visit it. The road to Tokat (2530 feet : 27° 30' : 76°) after crossing the bridge keeps to the left of the river along the base of the hills.

V.—*Sivas to Samsun.*

At Tokat we come upon the great road from Sivas to Samsun, which is as well known as any in Asiatic Turkey, and need not be again described in detail. One or two points may, however, be briefly noticed in connection with the ancient roads and sites in this region. The road comes over the Chamli Bel from Sivas to Tokat, but that this route is older than the growth of the latter town to importance seems to require proof. Professor Ramsay* adduces evidence of the road from Amasia to Comana, but no hint of a road from Comana to Sebastea except the conjectural identification of Verisa and Bolus. When Strabo (559) speaks of Comana as *ἐμπόριον τοῖς ἀπὸ τῆς Ἀρμενίας ἀξιόλογον*, he is evidently thinking of a connection through Nicopolis, not Sebastea. May not the traffic from Sebastea have been satisfied with the equally direct route through Sebastopolis and Zela to Amasia? It would do no harm to shift Verisa a little farther west. At any rate, until there is some further evidence of a Roman road over the Chamli Bel, it is safer to connect the milestones of Tokat—both that copied by Boré ('C. I. L.,' iii. 307), and the following almost illegible fragment found by us in the great square at the lower end of the town—not with a problematical road to Sebastea, but with the road to Comana and Neocaesarea, and the milestones at Omala. The inscription runs :—

IMP.....
 MAXIM..S.A...
 INV.C.VGC..ESAV
 ...CONSTANTI.
 ETCAL.PVA.
IA.....

[Imp. Caes. C. Aur. Val.]
 [Diocletiano et]
 Imp. [Caes. M. Aur. Val.
 Maxim[iano pp. ff.
 inv[i]c. [A]ugg. [et Fl]av.
 Val.] Constanti[o
 et Gal[er.] Va[l.
 Maxim[jia]no nobb. Caess.

* 'Hist. Geog.,' p. 262.

From Tokat the road follows the broad grassy valley of the Iris to Turkhal. The identification of Gazioura with Turkhal seems almost certain. Strabo (547) says that the Iris, after flowing westwards through the rich plain of Dazimonitis (Kaz Ova), *εἰς ἐπιστρέφει πρὸς τὰς ἀρκτους παρ' αὐτὰ τὰ Γαζίουρα, παλαιὸν βασιλεῖον, νῦν δ' ἔρημον*. Turkhal with its castled crag exactly suits the description, and there are several rock-cut panels with Greek inscriptions, the lettering of which appears to be pre-Roman. Moreover, between Tokat and Turkhal we found an inscription of the Emperor Maurice, which proves that an Imperial estate lay in the Kaz Ova, doubtless an old royal domain, which had descended from the priestly rulers of Comana first to the kings of Pontus and then to the Roman emperors, and was connected with the royal castle of Gazioura.* Professor Ramsay† has fixed Ibora at Turkhal. The ruined Gazioura may well have revived as Ibora. Can the syllable Gaz- be a separable prefix preserved in the modern 'Kaz,' and Ibora equivalent to -ioura?‡

Perhaps it is worth while noting that we were told of ancient remains at Cham Koi, two hours south of Turkhal, on the Tokat-Zela road, which never crosses the Iris, but keeps to the left bank.

Below Turkhal the road leaves the Iris and strikes across the Chengel Dere Pass to Ine Bazar (2880 feet: 27° 00': 87"). It does not rejoin the river till near Amasia. From Amasia there is a choice of routes. The new *chaussée* runs straight to Kavsa, but it is possible to make a *détour* either to the left through Marsivan to Kavsa, or to the right through Ladik and Ahmed Serai, to rejoin the *chaussée* short of Kavak. Now, at Kavsa we found three Roman milestones; the first two are said to have been recently found near the stream just above the town, and now lie in the courtyard of the Serai; the third we dug out of the hillside to the left of the main street. The inscriptions are:—

(i.)	IMP A (<i>sic</i>)	Imp
	NFRVAE (<i>sic</i>)	Nervae
	CAESARI	Caesari
	AVG-	aug.
	PONTIE (<i>sic</i>)	ponti(f).
	MAXIM-	maxim.
	TRIBPOT	trib. pot.
	PATRI-P-P (<i>sic</i>)	patri p. <p>.
	COSIII	cos. iii.
	XVI IP	xvi. ις'

* The inscription runs: + *Οροι τ[ω]ν θεοφυλάκ[των] ἡμῶν δεσποτῶν [Τιβ.] *Λ[α.] Μαυρικιο[υ καὶ] Θεοδοσιο[υ κρα]τα[ίων αἰωνί]ω[υ] ἀγροῦστων κ.τ.λ.

† 'Hist. Geog.', pp. 326-328.

‡ For Ioura = Ibora, cf. Oura = Ourba = Olba, 'Hist. Geog.', p. 22. For Gaz = Turkish Kaz (goose), cf. Amorion = Hadji Omar Ova. *Ibid.*, p. 230.

(ii.)	IMP	Imp.
	CAESA.DIVI	Caesa[ri] divi
	TRAIΛIPAR.	Traiani Par(thioi)
	FII.DIVI.NEPA	fi(1). divi Nerva(e)
	NEPOTITRAIA/O	nepoti Traiano
	ADRIA/O. A/G. PON	Adriano aug. pon(tifici)
	MAXI. TRIB. POT.	maxi[mo] trib. pot.
	VI. COS. III	vi. oos. iii.
	ΑΥΤΟΚ. ΚΑΙΣΑΡΙ	Αὐτοκ(ράτορ) Καίσαρ
	ΘΕΟΥΤΡΑΙΑΟΥ	θεοῦ Τραϊανοῦ
	ΠΑΡ. ΥΙΩ. ΘΕΟΥ	Παρ(θικοῦ) υἱῷ θεοῦ
	ΝΕΡΟΥΑΥΓΩΝΩΤΡΑ	Νερούα υἱωνῷ Τρα-
	ΙΑΩΑΔΡΙΑΩΕΕΒ (sic)	ιανῷ Ἀδριανῷ σεβ(αστῇ)
	ΑΡΧΙ. ΜΕΓ. ΔΗΑΡΧ (sic)	ἀρχι(ερεῖ) μεγ(ίστῃ) δημαρχ(ικῆς)
	ΕΖΟΥ. ΤΟ. Γ. ΥΠΑ	ἐξου(σίας) τὸ 5' ὑπὸ(τῇ)
	ΤΟ. Γ. ΜΙ ΧVI	τὸ γ' Μι. xvi.
	IF	ις'.
(iii.)	IMP	Imp.
	NERVAE	Nervae
	CAESARI	Caesari
	AVGPON	aug. pon-
	TIFICIMA	tifici ma-
	XIMTRIBV	xim. tribu-
	NICIAPOTES	nicia potes-
	TATE ATRIP	tate [p]atri p-
		[atriæ]

(No more is legible, and the stone is broken below.)

Two questions have to be decided: In the first place, what is the *caput viae*; and, secondly, what is the direction of the road. Evidently the road came down the little side valley in which Kavsa is situated, either from Marsivan to the south-west, or from Vezir Kupru to the north-west. Both these towns are important knots in the network of roads; both are reputed ancient sites; both are reckoned five hours from Kavsa, and would fit the 16 Roman miles of the stones. To the east, on the other hand, no suitable site can be found; and the milestone of Diocletian numbered 23, which was copied by Professor Ramsay* at Ahmed Serai, and clearly belongs to the same road, is enough to prove that the road ran from west to east, not *vice versa*. It is difficult to decide between Marsivan and Vezir Kupru without further exploration; but the claims of the latter seem at present rather the stronger. Both places are in immediate communication with the direct Ismid and Stambul road through Osmanjik; and the northern road from Tash

* 'Journal of Philology,' 1882, p. 156; 'C. I. L.,' iii., suppl., 6605.

Kupru and Sinob to Vezir Kupru may be set against the southern road from Chorum to Marsivan. But Marsivan seems never to have had the importance of a *caput viae*, for ancient remains are scarcely to be found there. Further, the *modern* road from Marsivan to Kavsa coincides for some miles with that from Amasia; and we saw no ancient traces upon that section. There is, on the other hand, evidence to connect Vezir Kupru with an important city. Considerable relics of antiquity were observed there by Hamilton and Ainsworth, and Sir Charles Wilson* was informed that a Roman bridge still exists there.

Now, there can be little doubt that the hot baths of Kavsa, which are still frequented, represent the *θερμὰ ὕδατα τῶν Φαζημονιτῶν* (Strabo, 560). Marsivan has been generally accepted as the site of Phazemon itself. But if Vezir Kupru be preferred for the *caput viae*, it is probably to be identified with Phazemon, where Pompey established his colony Neapolis. Andrappa Neo-Claudiopolis, the only alternative which suggests itself, seems rather to have lain to the west of the Halys.

There remains the question of the destination of the road. Did it continue eastward to Eupatoria-Magnopolis and Neocaesarea, as Sir Charles Wilson suggested, or turn northwards to Amisus? Possibly it may be proved that both these roads existed; but, at all events, there is already clear evidence of the latter. The milestone at Ahmed Serai is not, indeed, conclusive, for it must have been carried.† But between Kavsa and Kavak the Roman road may be plainly traced on the high ground for more than two hours (in some places‡ even the pavement is preserved intact); and at Kavak we found a small late milestone in a cemetery in the middle of the village. The inscription, which has either been added to by later scribbling, or superinscribed on an imperfectly obliterated monument, is as follows:—

DDNN N
 CONSTANTINO*AVGSGFΩAL
 VENERANDAEMEMORIAEAVG
 IMPCAESFLL
 CONSTAVTIO GET
 PFSEMPAVG SAbJ
 IMPCAESFLIVL
 CONSTANTEPFAVGAVG
 FLACHILIVS

* Quoted by Prof. Ramsay, 'Journ. of Phil.,' *loc. cit.*

† According to Prof. Ramsay's information Ahmed Serai is four hours from Kavsa, whereas the stone is the seventh from those copied by us. Three hours, however, is a fairer estimate of the distance from Kavsa.

‡ E.g. near a guard-house to the left of the modern road it is particularly well preserved.

D(ominis) n(ostris) [Imp. Caes.*
 Constantino aug. (p.) f. <au[g. (?)>
 venerandae memoriae <aug.>
 Imp. Caes. Fl. (J)[ulio
 Consta(n)tio [au]g. <et>
 p. f. semp(er) aug.
 Imp. Caes. Fl. Jul.
 Constant(i) p. f. aug. <aug.>
 Fl. Achilius

This inscription presents remarkable features. It has evidently been altered in part after the death of Constantine II., and the words "venerandae memoriae" cut in a space where "victori ac triumphatori" (or some such formula) had been erased. The constant repetition of "aug." is probably the work of a scribbler, for the words on the extreme right appeared to be mere scratches. Flavius Achilius is perhaps a new governor of Cappadocia to be added to the list on p. 708.

Beyond Kavak we found no more traces of the road. The suggestion may be hazarded that it kept down the valley of the Merd Irmak, instead of following the line of the modern *chaussée*, which winds over the ridges to the left of the river.

There is, however, no necessary connection between the milestones at Kavsa and this road to Amisus, for the continuation of the road through Kavsa eastwards to the Lycus is quite probable *à priori*, and it is tempting to see in Pompey's colonies, Pompeiopolis, Neapolis, Magnopolis, Diospolis, and Nicopolis, a series of stations on a great trunk road through Bithynia and Pontus.

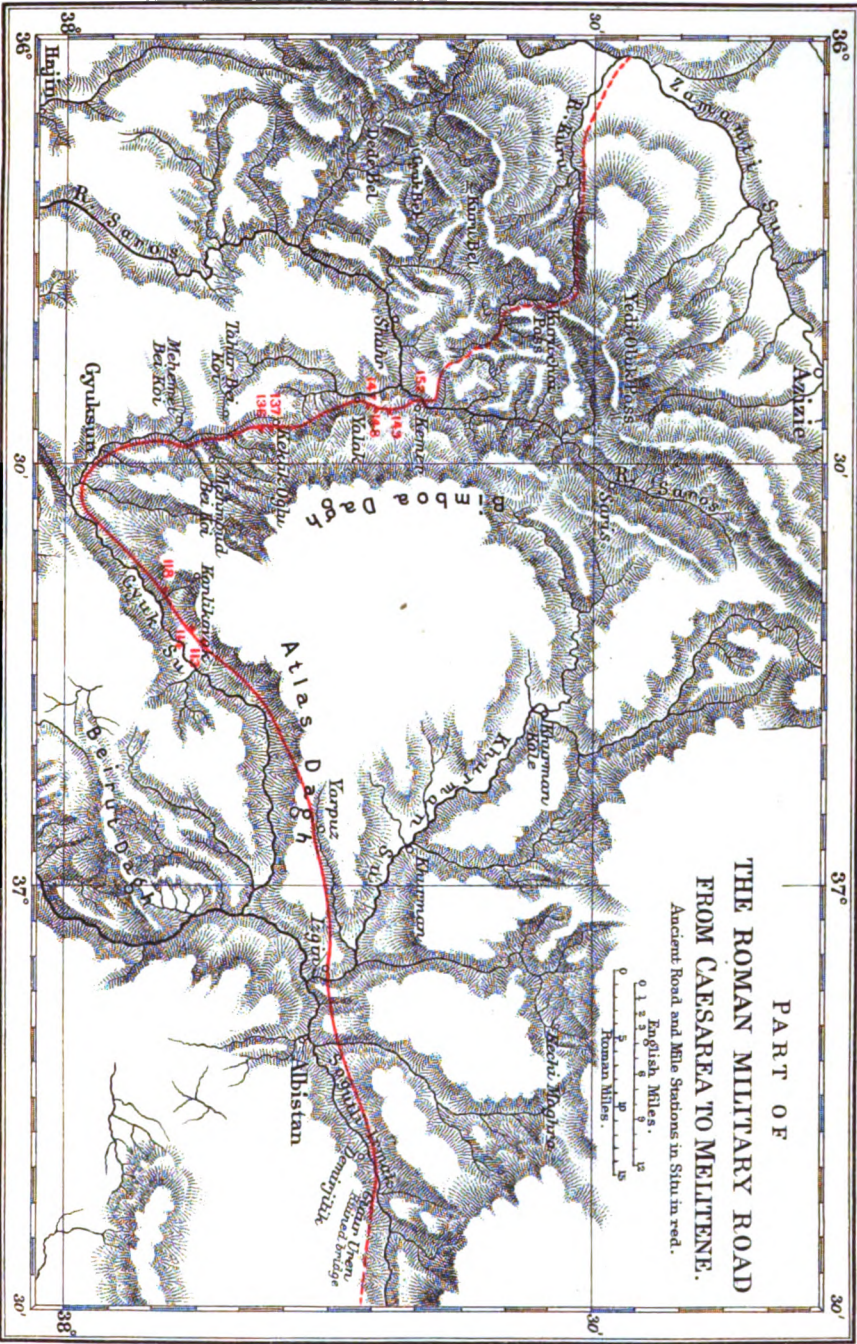
* Possibly this ought to have been copied D]D D N N N=D(ominis) n(ostris tribus), as Mr. Haverfield suggests. Prof. Mommsen suggests that lines 2 and 3 ought to be read

Constantino aug[u]s(t.) ac
 venerandae memoriae Aug.

PART OF
THE ROMAN MILITARY ROAD
FROM CAESAREA TO MELITENE.

Ancient Road and Mile Stations in Situ in red.

English Miles.
Roman Miles.



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